



Customer-Focused Solutions

**FORMAL SITE CLOSURE REQUEST**

March 10, 2006

FORMER 76 STATION 0353

200 South Central Avenue

Glendale, California

LARWQCB File No. 912040107

TRC Project No. 20-0948

Prepared For:

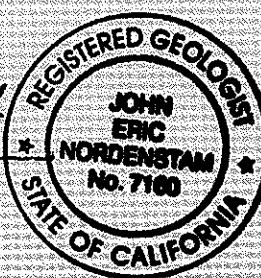
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### **1.0 INTRODUCTION AND OBJECTIVES**

On the behalf of ConocoPhillips Company, TRC submits this Formal Site Closure Request for former 76 Station 0353, located at 200 South Central Avenue in Glendale, California (see Figure 1).

This site has been included in the Los Angeles Regional Water Quality Control Board (LARWQCB) Expedited Agency Oversight Program (EAOP). In accordance with the LARWQCB letter dated February 15, 2005, detailing the EAOP requirements, TRC submitted a Remedial Action Plan on July 11, 2005 and a notice of intent to proceed with proposed actions on August 31, 2005. The proposed remedial activities were conducted from September through December 2005.

The objectives of this site closure request are to:

- Summarize site assessment and remediation activities conducted at the site.
- Demonstrate adequate vertical and lateral assessment of adsorbed-phase hydrocarbons present in the soil beneath the site.
- Demonstrate adequate assessment of groundwater present beneath the site.
- Demonstrate adequate remediation of hydrocarbon-affected soil in the vicinity of the former gasoline USTs through vapor extraction activities.
- Provide a formal site closure request to justify site closure with no further action.

### **2.0 BACKGROUND**

#### **2.1 SITE DESCRIPTION**

The site is an inactive service station located on the southeast corner of South Central Avenue and West Harvard Street in Glendale, California. The site is currently a fenced, vacant lot. All former service station facilities have been removed from the site (see Figure 2). The City of Glendale acquired the property from ConocoPhillips through condemnation proceedings. The City of Glendale Redevelopment Agency is planning on redeveloping the site with a mix of retail and residential uses. The Glendale Galleria Shopping Center is located west of the site. The properties north, east and south of the site are part of the planned redevelopment and are currently vacant.

#### **2.2 PREVIOUS INVESTIGATIONS**

In July 1994, two 10,000-gallon gasoline underground storage tanks (USTs) and one 550-gallon waste oil UST were excavated and removed from the site. Eight soil samples (BT-1 through BT-8) were collected from the gasoline UST excavation at approximately 16 feet below grade (fbg). Two soil samples (BT-9 and BT-10) were collected from the waste oil UST excavation at approximately 9 fbg. Six soil samples (DI-1 through DI-6) were collected from beneath the former dispensers at

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approximately 3 fbg. Two soil samples (PL-1 and PL-2) were collected from beneath the former product lines at approximately 3 fbg (Emcon, 1996).

Concentrations of total petroleum hydrocarbons as gasoline (TPH-G) of 998 and 1,295 milligrams per kilogram (mg/kg) were detected in Soil Samples BT-4 and BT-8, respectively, collected from the eastern portion of the gasoline UST excavation. No detectable concentrations of TPH-G; total recoverable petroleum hydrocarbons (TRPH); benzene, toluene, ethylbenzene, or total xylenes (BTEX) were present in Soil Samples BT-9 and BT-10 collected from the waste oil UST excavation. A TPH-G concentration of 4,562 mg/kg was detected in Soil Sample DI-6 collected from the eastern portion of the eastern dispenser island. No detectable concentrations of TPH-G or BTEX were present in Soil Sample PL-1 collected from the beneath the product lines. Concentrations of 0.009 and 0.011 mg/kg of toluene and total xylenes, respectively, were detected in Soil Sample PL-2; no detectable concentrations of TPH-G, benzene, or ethylbenzene were present in this sample (Emcon, 1996).

Based on the results of laboratory analysis of soil samples collected during UST removal activities, the eastern portion of the eastern dispenser island and the eastern portion of the gasoline UST excavation were over excavated to depths of approximately 7 and 20 fbg, respectively. Two soil samples (BT-4A and BT-8A) were collected from the gasoline UST over excavation and one soil sample (DI-6A) was collected from the dispenser island over excavation. No detectable concentration of TPH-G was present in Soil Sample BT-4A. Detectable TPH-G concentrations of 683 and 3,458 mg/kg were present in Soil Samples BT-8A and DI-6A, respectively (Emcon, 1996).

Following soil sampling and over excavation activities, two 20,000-gallon gasoline USTs were installed in the same area as the former gasoline USTs (oriented north-south vs. east-west orientation of former gasoline USTs) and a 550-gallon waste oil UST was installed at the same location as the former waste oil UST (Emcon, 1996).

In March 1995, six borings (E-1 through E-6 and E-1A) were drilled in the vicinity of the gasoline USTs and the eastern dispenser island (see Figure 2). Boring E-1 was drilled through a conductor casing installed in the eastern portion of the gasoline UST excavation. Boring E-1 was only drilled to a total depth of approximately 25 fbg due to auger refusal. Borings E-1A, E-1, and E-2 were converted to vapor extraction wells. Groundwater was not encountered during this investigation (maximum depth of investigation approximately 73.5 fbg). A maximum TPH-G concentration of 2,800 mg/kg was detected in the soil sample collected from Boring E-1 at approximately 25 fbg. A maximum TPH-G concentration of 940 mg/kg was detected in the soil sample collected from Boring E-1A at approximately 51 fbg. Concentrations of TPH-G ranging from non-detect to less than 2 mg/kg were detected in soil samples collected from Borings E-2 through E-5 (Emcon, 1996).

In April 1995, a vapor extraction test was conducted at the site using Vapor Wells E-1A, E-1, and E-2. Flow rates ranging from approximately 19.8 to 39.5 standard cubic feet per minute (scfm) and vacuum ranging from approximately 2.1 to 13 inches of water were observed during testing activities. Concentrations of TPH-G ranging from 2,700 to 19,000 parts per million by volume (ppmv) were detected in vapor samples collected from Wells E-1, E-1A, and E-2. Based on the

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results of the testing activities, the estimated radius of influence (ERI) ranged from approximately 28 to 32 feet (Emcon, 1996).

In May 1998, the City of Glendale Fire Department issued site closure based on the designation of the property as a “low risk” site.

In February 2004, at the request of the Glendale Redevelopment Agency, six borings (B1 through B6) and 48 direct-push borings (GP-1 through GP-48) were drilled and sampled at the site (see Figure 2). Groundwater was encountered at approximately 105 fbg during soil sampling activities. Maximum TPH-G and benzene concentrations of 24,300 and 75.3 mg/kg, respectively, were detected in the soil sample collected from Boring B1 at approximately 55 fbg. A maximum methyl tertiary butyl ether (MTBE) concentration of 0.646 mg/kg was detected in the soil sample collected from Boring B4 at approximately 55 fbg. A maximum tertiary butyl alcohol (TBA) concentration of 0.181 mg/kg was detected in the soil sample collected from Boring B3 at approximately 55 fbg. In addition, four shallow (less than 10 feet deep) and two deeper (up to approximately 15 feet deep), diesel/heavy-end hydrocarbon soil plumes were detected in the southern portion of the site (EP Associates, 2004a).

In August 2004, Monitoring Wells MW-1 through MW-5 were drilled and installed at the site (see Figure 2). Groundwater was encountered at approximately 100 fbg during well installation activities. A maximum TPH-G concentration of 2,200 mg/kg was detected in the soil sample collected from Monitoring Well MW-3 at approximately 75 fbg. Maximum MTBE and TBA concentrations of 0.391 and 0.610 mg/kg, respectively, were detected in the soil sample collected from Monitoring Well MW-1 at approximately 55 fbg (EP Associates, 2004b).

A quarterly fluid level monitoring and groundwater sampling program was initiated in September 2004 and continues to date (TRC, 2006c).

In December 2004, Monitoring Wells MW-6 through MW-9 were drilled and installed at the site (see Figure 2). Groundwater was encountered at approximately 102.5 to 105 fbg during well installation activities. One soil sample was collected from each monitoring well at approximately 105 fbg. No detectable concentrations of TPH-G, TPH as diesel (TPH-D), BTEX, MTBE, di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), TBA, or volatile organic compounds (VOCs) were present in the soil samples collected from Monitoring Wells MW-6 through MW-9 at approximately 105 fbg (EP Associates, 2005).

In July 2005, in order to facilitate removal of the gasoline USTs, onsite Monitoring Wells MW-1 and MW-3 were properly abandoned (TRC, 2005a).

In July 2005, site demolition activities were conducted. Two 20,000-gallon gasoline USTs, one 550-gallon waste oil UST, associated product lines and dispensers were excavated and removed from the site. Eight soil samples (TC-1 through TC-8) were collected from the gasoline UST excavation at approximately 17 fbg. Two soil samples (WO-1 and WO-2) were collected from the waste oil UST excavation at approximately 7 and 9 fbg. Five soil samples (D-1 through D-5) were

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collected from beneath the dispensers at depths ranging from approximately 3 to 4 fbg. Six soil samples (PL-1 through PL-6) were collected from beneath the product lines at depths ranging from approximately 2.5 to 4 fbg. Three soil samples (VL-1, VL-2, and VL-3) were collected from beneath the vent lines at depths of 3.5 and 4 fbg. Two soil samples (H-1 and H-2) were collected from beneath the hydraulic hoists at depths of approximately 8.5 and 9 fbg, and two soil samples (C-1 and C-2) were collected from beneath the clarifier at approximately 5.5 fbg. No detectable concentrations of TPH-G, BTEX, MTBE, DIPE, ETBE, TAME, TBA or ethanol were present in soil samples collected from beneath the former: gasoline USTs (TC-1 through TC-8), dispensers (D-1 through D-5), product lines (PL-1 through PL-6), or vent lines (VL-1 through VL-3). No detectable concentrations of TRPH, TPH-G, BTEX, MTBE, DIPE, ETBE, TAME, TBA or ethanol were present in soil samples collected from beneath the former hydraulic hoists (H-1 and H-2) or clarifier (C-1 and C-2). TRPH concentrations of 55 and 790 mg/kg were present in Soil Samples WO-1 and WO-2, respectively, collected from beneath the former waste oil UST. Total lead concentrations were detected in Soil Samples TC-1 (8.3 mg/kg), TC-2 (6.2 mg/kg), WO-1 (3.4 mg/kg), and WO-2 (13 mg/kg) (TRC, 2005b).

In August 2005, Monitoring Wells MW-1A and MW-3A, and Vapor Wells VW-1A/B/C, VW-2A/B/C, and VW-3A/B/C were installed in the vicinity of the former gasoline USTs (see Figure 2). A maximum total purgeable petroleum hydrocarbon (TPPH) concentration of 390 mg/kg was detected in the soil sample collected from Monitoring Well MW-1A at approximately 51 fbg. A maximum benzene concentration of 0.033 mg/kg was detected in the soil sample collected from Vapor Well VW-3B/C at approximately 65.5 fbg. A maximum MTBE concentration of 0.63 mg/kg was detected in the soil sample collected from Vapor Well VW-3B/C at approximately 91.5 fbg (TRC, 2005c)

In August 2005, a total of eight soil gas probes were installed at the site (see Figure 2). Two clusters of 3 soil gas probes each (SG-1 and SG-2) were installed in the gasoline UST area and two single soil gas probes (SG-3 and SG-4) were installed in the southern portion of the site. The soil gas probe clusters (SG-1 and SG-2) consisted of 3 soil gas probes installed at depths of approximately 15, 20, and 25 fbg. Soil Gas Probes SG-3 and SG-4 were installed to total depths of approximately 15 fbg. A maximum TPH-G concentration of 2.3 ppmv was detected in the soil vapor sample collected from Soil Gas Probe SG-1 at approximately 20.0 fbg. A maximum benzene concentration of 0.0021 ppmv was detected in the soil vapor sample collected from Soil Gas Probe SG-4 at approximately 15.0 fbg. A maximum MTBE concentration 0.0064 ppmv was detected in the soil vapor sample collected from Soil Gas Probe SG-2 at approximately 20.0 fbg (TRC, 2005c).

In August 2005, a risk assessment was conducted to evaluate if contaminated soil present beneath the site poses a potential risk to humans associated with the proposed redevelopment of the site. Potential site uses evaluated in this analysis included both future residential and commercial development alternatives, including the construction of an underground parking area. The results of this analysis indicate that potential upper-bound exposures to hydrocarbons in indoor air under future residential and commercial land uses are below the range of acceptable risks typically established by the Environmental Protection Agency (EPA), CalEPA, and other regulatory entities (TRC, 2006a).

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Vapor extraction testing activities were conducted at the site in September 2005. A total of 4 separate step-flow-rate tests and 5 separate constant-flow-rate tests were performed. Vapor extraction activities were conducted at the site from September 27, 2005 through October 27, 2005. Wells MW-1A, MW-2, MW-3A, VW-1A/B/C, VW-2A/B/C, and VW-3A/B/C were utilized during vapor extraction activities. In November 2005, vapor rebound testing activities were conducted at the site to assess any residual hydrocarbon vapors that may be present in the subsurface beneath the site (TRC, 2006b).

In December 2005, a total of 7 confirmation borings (CB-1 through CB-6, and CB-2A) were drilled in the vicinity of the former gasoline USTs. Maximum concentrations of TPPH (6,900 mg/kg), benzene (14 mg/kg), and MTBE (1.3 mg/kg) were detected in the soil sample collected from Confirmation Boring CB-4 at approximately 50.0 fbg (TRC, 2006b).

Based on the results of quarterly fluid level monitoring and groundwater sampling activities conducted in January 2006:

- Groundwater is present at depths ranging from approximately 97.6 to 99.9 fbg. The groundwater gradient is approximately 0.004 foot per foot directed toward the west (TRC, 2006c).
- No detectable concentrations of TPPH were present in groundwater samples collected from Monitoring Wells MW-1A, MW-2, MW-3A, and MW-4 through MW-9 (TRC, 2006c).
- J-Flag benzene concentrations (between the Practical Quantitation Limit and Method Detection Limit) of 0.22 and 0.15 micrograms per liter (ug/l) were detected in groundwater samples collected from Monitoring Wells MW-5 and MW-7, respectively (TRC, 2006c).
- A detectable MTBE concentration of 2.0 ug/l was present in the groundwater sample collected from Monitoring Well MW-3A. J-Flag MTBE concentrations ranging from 0.18 to 0.26 ug/l were present in groundwater samples collected from Monitoring Wells MW-1A, MW-4, MW-5, and MW-8. No detectable concentrations of MTBE were present in groundwater samples collected from Monitoring Wells MW-2, MW-6, MW-7, and MW-9 (TRC, 2006c).
- No detectable concentrations of DIPE, ETBE, TAME, TBA, or ethanol were present in groundwater samples collected from Monitoring Wells MW-1A, MW-2, MW-3A, and MW-4 through MW-9 (TRC, 2006c).

The results of laboratory analysis of soil and vapor samples from previous investigations are presented in Appendix A. Selected figures, tables, charts, and boring logs from previous investigations are presented in Appendix B. A copy of the Quarterly Monitoring Report, January through March 2006 is included in Appendix C.

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### **2.3 REGIONAL GEOLOGY AND HYDROGEOLOGY**

The site is located within the Upper Los Angeles River Area (ULARA). The ULARA encompasses all the watershed of the Los Angeles River and its tributaries above a point in the river designated as Los Angeles County Department of Public Works (LACDPW) Gauging Station F-57C-R, near the junction of the Los Angeles River and the Arroyo Seco. The ULARA is bounded on the north and northwest by the Santa Susana Mountains; on the north and northeast by the San Gabriel Mountains; on the east by the San Rafael Hills, which separate it from the San Gabriel Basin; on the south by the Santa Monica Mountains, which separate it from the Los Angeles Coastal Plain; and on the west by the Simi Hills (ULARA Watermaster, 2003).

The ULARA has four distinct groundwater basins. The water supplies of these basins are separate and are replenished by deep percolation from rainfall, surface runoff and from a portion of the water that is delivered for use within these basins. The four groundwater basins in the ULARA are the San Fernando, Sylmar, Verdugo, and Eagle Rock Basins (ULARA Watermaster, 2003).

The site is located within the southeastern portion of the San Fernando Basin. The San Fernando Basin is the largest of the four groundwater basins within the ULARA. It is bounded on the east and northeast by the San Rafael Hills, Verdugo Mountains, and the San Gabriel Mountains; on the north by the San Gabriel Mountains and the eroded south limb of the Little Tujunga Syncline which separates it from the Sylmar Basin; on the northwest and west by the Santa Susana Mountains and the Simi Hills; and on the south by the Santa Monica Mountains (ULARA Watermaster, 2003).

Regional groundwater in the area of the site occurs in Quaternary alluvial deposits consisting primarily of sand and gravels with localized, interbedded lenses of silt and clay. The alluvium overlies sandstone and conglomerates of the Topanga Formation (Department of Water and Power, 1983). The regional groundwater flow in the area of the site is directed toward the southwest (ULARA Watermaster, 2003).

The site is located within the Crystal Springs Well Field. The Crystal Springs Well Field is on the Federal National Priority List (NPL) as a Federal Superfund site due to the presence of chlorinated hydrocarbons in the groundwater (City of Glendale-Water Section, 1993). Although the site is located within the Crystal Springs Well Field NPL Superfund site, the actual chlorinated solvent plume in Glendale is limited to areas along San Fernando Road and west of San Fernando Road, approximately 3,500 feet west of the site (ULARA Watermaster, 2003). A groundwater extraction and treatment facility was constructed in October 1999 to remediate contaminated groundwater within the Crystal Springs Well Field (City of Glendale-Water Section, 1993).

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### **3.0 FINDINGS**

#### **3.1 SOIL**

##### **3.1.1 Soil Types**

Soil types encountered beneath the site consist of sand, gravelly sand, and sandy gravel with interbedded layers of silty and clayey sand to a total depth of approximately 130 fbg (maximum depth of investigation). Refer to Appendix B for copies of cross sections from previous investigations

##### **3.1.2 Gasoline USTs**

Gasoline range hydrocarbon-affected soil is present in the vicinity of the former gasoline USTs. Hydrocarbon-affected soil present in the area of the former gasoline USTs was previously excavated to a depth of approximately 20 fbg in 1994. Prior to vapor extraction activities conducted in October and November 2005, maximum TPH-G or TPPH, benzene, and MTBE concentrations of 24,300, 75.3, and 0.646 mg/kg, respectively, were detected in soil samples collected from the former gasoline UST area (see Figure 3). After recent vapor extraction activities, maximum TPPH, benzene, and MTBE concentrations of 6,900, 14, and 1.3 mg/kg, respectively, were detected soil samples collected from the former gasoline UST area (see Figure 4). Based on site assessment activities conducted to date, it appears that the lateral and vertical extent of adsorbed-phase hydrocarbons in the vicinity of the former gasoline USTs has been adequately assessed (see Figures 3 and 4). The results of laboratory analysis of soil samples from previous investigations are presented in Appendix A. Selected figures from previous investigations are presented in Appendix B.

##### **3.1.3 Eastern Dispenser Island**

Gasoline range hydrocarbon-affected soil is present in the vicinity of the eastern portion of the former eastern dispenser island. Hydrocarbon-affected soil in the area of the former eastern dispenser island was previously excavated to a depth of approximately 7 fbg in 1994. Maximum TPH-G and benzene concentrations of 3,458 and 4.369 mg/kg, respectively, were detected soil samples collected from the area of the former eastern dispenser (see Figure 4). Vapor extraction activities were not conducted in the area of the former eastern dispenser island during the vapor extraction activities conducted in October and November 2005. The complete area of the site will be excavated to approximately 15 fbg for a subterranean parking structure during the City of Glendale redevelopment activities and hydrocarbon-affected soil present in the area of the former eastern dispenser island will be removed during these excavation activities. Based on site assessment activities conducted to date, it appears that the lateral and vertical extent of adsorbed phase hydrocarbons in the vicinity of the former eastern dispenser island has been adequately assessed (see Figure 4). The results of laboratory analysis of soil samples from previous investigations are presented in Appendix A. Selected figures from previous investigations are presented in Appendix B.

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### 3.1.4 Waste Oil UST

Waste oil-affected soil is present in the vicinity of the former waste oil UST. Maximum TRPH and total lead concentrations of 790 and 13 mg/kg, respectively, were detected soil samples collected from the former waste oil UST area in July 2005. No detectable concentrations of TPH-G, benzene, or MTBE were present in soil samples collected from beneath the former waste oil UST (refer to TRC Figure 3: Soil Sample Results, included in Appendix B). The complete area of the site will be excavated to approximately 15 fbg for a subterranean parking structure during the City of Glendale redevelopment activities and waste oil-affected soil present in the area of the former waste oil UST will be removed during these excavation activities. The results of laboratory analysis of soil samples from previous investigations are presented in Appendix A. Selected figures from previous investigations are presented in Appendix B.

### 3.1.5 Diesel/Heavy End Hydrocarbon-Affected Soil

Diesel/heavy end hydrocarbon-affected soil is present in the shallow subsurface in the southern portion of the site. A total of four shallow (less than 10 feet deep) and two deeper (up to approximately 15 feet deep), diesel/heavy-end hydrocarbon soil plumes are present in the southern portion of the site (refer to EP Associates Figure 2: Site Plan dated September 25, 2003, included in Appendix B). One of these plumes is located adjacent to the former waste oil UST area and appears to be the same plume as was detected during waste oil UST removal activities conducted in July 2005. The total volume of the diesel/heavy end hydrocarbon-affected soil is estimated at approximately 304 cubic yards (EP Associates, 2004a). The complete area of the site will be excavated to approximately 15 fbg for a subterranean parking structure during the City of Glendale redevelopment activities and the diesel/heavy end hydrocarbon-affected soil present in the shallow subsurface in the southern portion of the site will be removed during these excavation activities. The results of laboratory analysis of soil samples from previous investigations are presented in Appendix A. Selected figures from previous investigations are presented in Appendix B.

## 3.2 GROUNDWATER

The current average depth to groundwater beneath the site is approximately 98.6 fbg. Since 2004, groundwater levels have risen by as much as approximately 4 feet. The groundwater gradient is directed toward the west.

Liquid-phase hydrocarbons (LPH) have not been observed in the monitoring wells installed at the site. The historic maximum concentrations of TPH-G or TPPH, benzene, and MTBE detected in the monitoring wells are: 185 ug/l (MW-3, 9/02/04), 4.1 ug/l (MW-8, 5/09/05), and 217 ug/l (MW-3, 9/02/04), respectively. Concentrations of DIPE, TAME, ETBE, and TBA have never been detected in any groundwater samples collected from the site (a total of 6 sampling events).

Currently, the maximum concentrations of TPPH, benzene, and MTBE detected in the monitoring wells are: none detected (all wells), J-Flag concentration of 0.22 ug/l (MW-5), and 2.0 ug/l

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(MW-3A), respectively (TRC, 2006c). Based on the results of laboratory analysis of groundwater samples collected on January 17, 2006, it appears that the lateral extent of dissolved-phase hydrocarbons present in the groundwater beneath the site has been adequately assessed. A copy of Quarterly Monitoring Report, January through March 2006 is included in Appendix C.

### **3.3 REMEDIATION ACTIVITIES**

#### **3.3.1 Vapor Extraction Testing**

A total of 4 separate step-flow-rate tests and 5 separate constant-flow-rate tests were performed at the site during vapor extraction testing activities conducted in October 2005. Based on vapor extraction testing activities, it appears that the ERI for the:

- “A Zone” (20 to 40 fbg) is approximately 36 feet (TRC, 2006b).
- “B Zone” (45 to 65 fbg) is approximately 70 feet (TRC, 2006b).
- “C Zone” (70 to 90 fbg) is approximately 68 feet (TRC, 2006b).
- “D Zone” (90 to 100 fbg) is approximately 63 feet (TRC, 2006b).

The estimated ERI for the “A Zone” and the estimated lateral extent of adsorbed-phase hydrocarbons are shown on Figure 5. An estimated ERI of 60 feet for the “B/C/D Zones” and the estimated lateral extent of adsorbed-phase hydrocarbons are shown of Figure 6. Copies of vapor extraction testing data are included in Appendix B.

#### **3.3.2 Vapor Extraction Activities**

A total of approximately 96 pounds of hydrocarbons was removed from the subsurface after a total of 742.5 hours of vapor extraction in October and November 2005. A comparison of vapor samples collected from the wells at VES startup versus vapor samples collected during system operation and at VES shutdown indicates significant decreases in vapor sample concentrations (TRC, 2006b). A summary of the results of laboratory analysis of vapor samples collected from the wells during VES operations is presented below:

- A maximum initial TPH-G concentration of 1,200 ppmv was detected in the vapor sample collected from Well VW-2B on September 27, 2005. A maximum final TPH-G concentration of 88 ppmv was detected in the vapor sample collected from Well VW-1B on October 27, 2005 (TRC, 2006b).
- A maximum initial benzene concentration of 6.7 ppmv was detected in the vapor sample collected from Well VW-2B on September 27, 2005. A maximum final benzene concentration of 0.39 ppmv was detected in the vapor sample collected from Well VW-3A on September 28, 2005 (TRC, 2006b).

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- A maximum initial MTBE concentration of 5.6 ppmv was detected in the vapor sample collected from Well VW-2C on October 19, 2005. A maximum final MTBE concentration of 4.3 ppmv was detected in the vapor sample collected from Well VW-2C on October 20, 2005 (TRC, 2006b).

Results of laboratory analysis of vapor samples are included in Appendix A. Copies of vapor extraction data are included in Appendix B.

### **3.3.3 Vapor Rebound Testing**

The VES unit operated a total of 36.5 hours during vapor rebound testing conducted in November 2005. A total of approximately 2 pounds of hydrocarbons was removed from the subsurface during vapor rebound testing activities. A comparison of vapor samples collected from the wells at vapor rebound testing startup versus vapor samples collected during vapor rebound testing and at vapor rebound testing shutdown indicates decreases in vapor sample concentrations (TRC, 2006b). A summary of the results of laboratory analysis of vapor samples collected from the wells during vapor rebound testing is presented below:

- A maximum initial TPH-G concentration of 230 ppmv was detected in the vapor sample collected from Vapor Extraction Well VW-3B on November 14, 2005. Maximum final TPH-G concentrations of 170 ppmv were detected in vapor samples collected from Wells VW-2B and VW-3B on November 15, 2005 (TRC, 2006b).
- A maximum initial benzene concentration of 0.26 ppmv was detected in the vapor sample collected from Well VW-2B on November 14, 2005. A maximum final benzene concentration of 0.13 ppmv was detected in the vapor sample collected from Well VW-2B on November 15, 2005 (TRC, 2006b).
- A maximum initial MTBE concentration of 0.74 ppmv was detected in the vapor sample collected from Well VW-2B on November 14, 2005. A maximum final MTBE concentration of 0.70 ppmv was detected in the vapor sample collected from Well VW-2B on November 15, 2005 (TRC, 2006b).

Results of laboratory analysis of vapor samples are included in Appendix A. Copies of vapor extraction data are included in Appendix B.

## **3.4 HUMAN HEALTH RISK ASSESSMENT**

Prior to conducting vapor extraction activities at the site, a risk assessment was conducted to evaluate if contaminated soil present beneath the site poses a potential risk to humans associated with the proposed redevelopment of the site. Potential site uses evaluated in this analysis included both future residential and commercial development alternatives, including the construction of an underground parking area. The results of this analysis indicate that potential upper-bound exposures to hydrocarbons in indoor air under future residential and commercial land uses are

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below the range of acceptable risks typically established by the EPA, CalEPA, and other regulatory entities (TRC, 2006a).

### **4.0 CONCLUSIONS**

This site closure request is submitted on the basis of the following:

- Groundwater sampling data indicate that hydrocarbon-affected soil present in the vicinity of the former gasoline USTs has had a limited impact on groundwater present beneath the site.
  - LPH has not been observed in the monitoring wells installed at the site.
  - Currently, the maximum concentrations of TPPH, benzene, and MTBE detected in the monitoring wells are: none detected (all wells), J-Flag concentration of 0.22 ug/l (MW-5), and 2.0 ug/l (MW-3A), respectively.
  - The concentrations of benzene, toluene, ethylbenzene, total xylenes, and MTBE detected in groundwater samples collected from all wells on January 17, 2006, are all below the Maximum Contaminant Levels (MCLs) of 1, 150, 300, 1,750, and 5 ug/l, respectively.
  - Concentrations of DIPE, ETBE, TAME, and TBA have never been detected in any groundwater samples collected from the site (a total of 6 sampling events).
  - Based on the results of laboratory analysis of groundwater samples collected on January 17, 2006, it appears that the lateral extent of dissolved-phase hydrocarbons present in the groundwater beneath the site is of limited lateral extent and has been adequately assessed.
- Hydrocarbon-affected soil present in the vicinity of the former gasoline USTs appears to be of limited vertical and lateral extent and has been adequately assessed and remediated.
  - After vapor extraction activities, maximum TPPH, benzene, and MTBE concentrations of 6,900, 14, and 1.3 mg/kg, respectively, were detected soil samples collected from the former gasoline UST area
  - A total of approximately 98 pounds of hydrocarbons have been removed from the subsurface after a total of approximately 779 hours of vapor extraction activities.
  - The rate of hydrocarbon recovery through vapor extraction is very low (approximately 3 pounds per 24 hours).
  - Low influent vapor concentrations observed during vapor extraction activities suggest that a limited amount of hydrocarbon-affected soil is present in the subsurface.

## **Formal Site Closure Request**

Former 76 Station 0353

March 10, 2006

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- A comparison of hydrocarbon vapor concentrations observed during initial VES operations verses hydrocarbon concentrations observed during vapor rebound testing activities indicates an overall reduction in influent concentrations of TPH-G, benzene, and MTBE. A comparison of hydrocarbon vapor concentrations observed at the end VES operations verses hydrocarbon concentrations observed during vapor rebound testing activities does not indicate an increase in influent concentrations of TPH-G, benzene, and MTBE. Therefore, it appears that vapor extraction activities have effectively removed the extractable hydrocarbon mass from the subsurface.
- The results of laboratory analysis of vapor samples collected during vapor extraction activities indicate that extracted hydrocarbon vapors consisted of predominately heavier end hydrocarbons (ethylbenzene and total xylenes). In addition, a comparison of the results of laboratory analysis of vapor samples collected during recent vapor extraction activities (maximum TPH-G concentration of 1,200 ppmv) of verses the results of laboratory analysis of vapor samples collected during vapor extraction testing activities conducted in 1995 (maximum TPH-G concentration of 19,000 ppmv) indicates a significant decrease in extractable hydrocarbon concentrations. Therefore, it appears that the hydrocarbons present beneath the site are the result of an older release that has degraded through natural attenuation.
- Based on the results of vapor extraction tests conducted at the site, it appears that extraction from Wells VW-1A/B/C, VW-2A/B/C, VW-3A/B/C, MW-1A and MW-3A resulted in an ERI that was sufficient to effectively remediate adsorbed-phase hydrocarbons present in the vicinity of the former gasoline USTs.
- Based on the ERI calculated from vapor extraction testing activities and the low influent concentrations observed from Well VW-1B/C during rebound testing activities, it appears that the hydrocarbons detected in soil samples collected from Confirmation Boring CB-4 are heavy end hydrocarbons that have adsorbed to the soil matrix and are not recoverably through vapor extraction.
- Hydrocarbon-affected soil present in the vicinity of the former eastern dispenser island appears to be of limited vertical and lateral extent and has been adequately assessed.
  - A maximum TPH-G concentration of 3,458 mg/kg was detected in soil samples collected from beneath the former eastern dispenser island.
  - A maximum benzene concentration of 4.369 mg/kg was detected in soil samples collected from beneath the former eastern dispenser island.
  - Hydrocarbon-affected soil present in the area of the former eastern dispenser island will be removed during excavation activities to be conducted as part of the City of Glendale redevelopment activities.

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- Hydrocarbon-affected soil present in the vicinity of the former waste oil UST appears to be of limited vertical and lateral extent and has been adequately assessed.
  - A maximum TRPH concentration of 790 mg/kg was detected in soil samples collected form the former waste oil UST area.
  - A maximum total lead concentration of 13 mg/kg was detected in soil samples collected form the former waste oil UST area.
  - Hydrocarbon-affected soil present in the area of the former waste oil UST will be removed during excavation activities to be conducted as part of the City of Glendale redevelopment activities.
- Four shallow, diesel/heavy-end hydrocarbon soil plumes present in the southern portion of the site appear to be of limited vertical and lateral extent and have been adequately assessed.
  - One of these plumes is located adjacent to the former waste oil UST area and appears to be the same plume as was detected during waste oil UST removal activities conducted in July 2005.
  - The total volume of the diesel/heavy end hydrocarbon-affected soil is estimated at approximately 304 cubic yards.
  - Diesel/heavy-end hydrocarbon-affected soil present in the southern portion of the site will be removed during excavation activities to be conducted as part of the City of Glendale redevelopment activities.
- A risk assessment conducted before vapor extraction activities were conducted at the site indicated that contaminated soil present beneath the site (prior to conducting remediation activities) did not pose a potential risk to humans associated with the proposed redevelopment of the site.

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Former 76 Station 0353

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**5.0 RECOMMENDATIONS**

Based on the site assessment and remediation activities conducted to date, TRC recommends that:

- The site should be considered for regulatory site closure. A completed Underground Storage Tank Low Risk Case Review Form is included in Appendix D.
- All groundwater monitoring and vapor wells at the site should be abandoned in accordance with applicable standards and regulations.
- Hydrocarbon-affected soil in the area of the former eastern dispenser island, former waste oil UST area, and the southern portion of the site should be excavated during the City of Glendale redevelopment activities.

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The activities summarized in this report have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. No warranty, express or implied, is made regarding the findings and professional opinions presented in this report. The findings are based solely upon an analysis of the observed conditions. If actual conditions differ from those described in this report, our office should be notified.

**Formal Site Closure Request**

Former 76 Station 0353

March 10, 2006

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**6.0 REFERENCES**

City of Glendale-Water Section, 1993, Briefing Book: Superfund Activities, Glendale Area, City of Glendale Public Service Department Water Section.

Department of Water and Power, 1983, Groundwater Quality Management Plan, San Fernando Valley Basin, Prepared for Southern California Association of Governments, July 1.

Emcon, 1996, Remedial Action Plan: Unocal Station 0353, 200 South Central Avenue, Glendale, California, March 14.

EP Associates, 2004a, Subsurface Investigation: Unocal Service Station 0353, 200 South Central Avenue, Glendale, California, March 11.

EP Associates, 2004b, Groundwater Assessment Report: Unocal Service Station 0353, 200 South Central Avenue, Glendale, California, September 30.

EP Associates, 2005, Additional Groundwater Assessment: Unocal Service Station 0353, 200 South Central Avenue, Glendale, California, January 17.

TRC, 2005a, Well Abandonment Report: Former 76 Station 0353, 200 South Central Avenue, Glendale, California, August 10.

TRC, 2005b, Underground Storage Tank Closure Report: Former 76 Station 0353, 200 South Central Avenue, Glendale, California, October 14.

TRC, 2005c, Additional Site Assessment Report: Former 76 Station 0353, 200 South Central Avenue, Glendale, California, December 30.

TRC, 2006a, Human Health Risk Assessment Report: Former 76 Station 0353, 200 South Central Avenue, Glendale, California, January 17.

TRC, 2006b, Report of Remediation and Confirmation Sampling Activities: Former 76 Station 0353, 200 South Central Avenue, Glendale, California, January 31.

TRC, 2006c, Quarterly Monitoring Report, October through December 2005: Former 76 Station 0353, 200 South Central Avenue, Glendale, California, February 2.

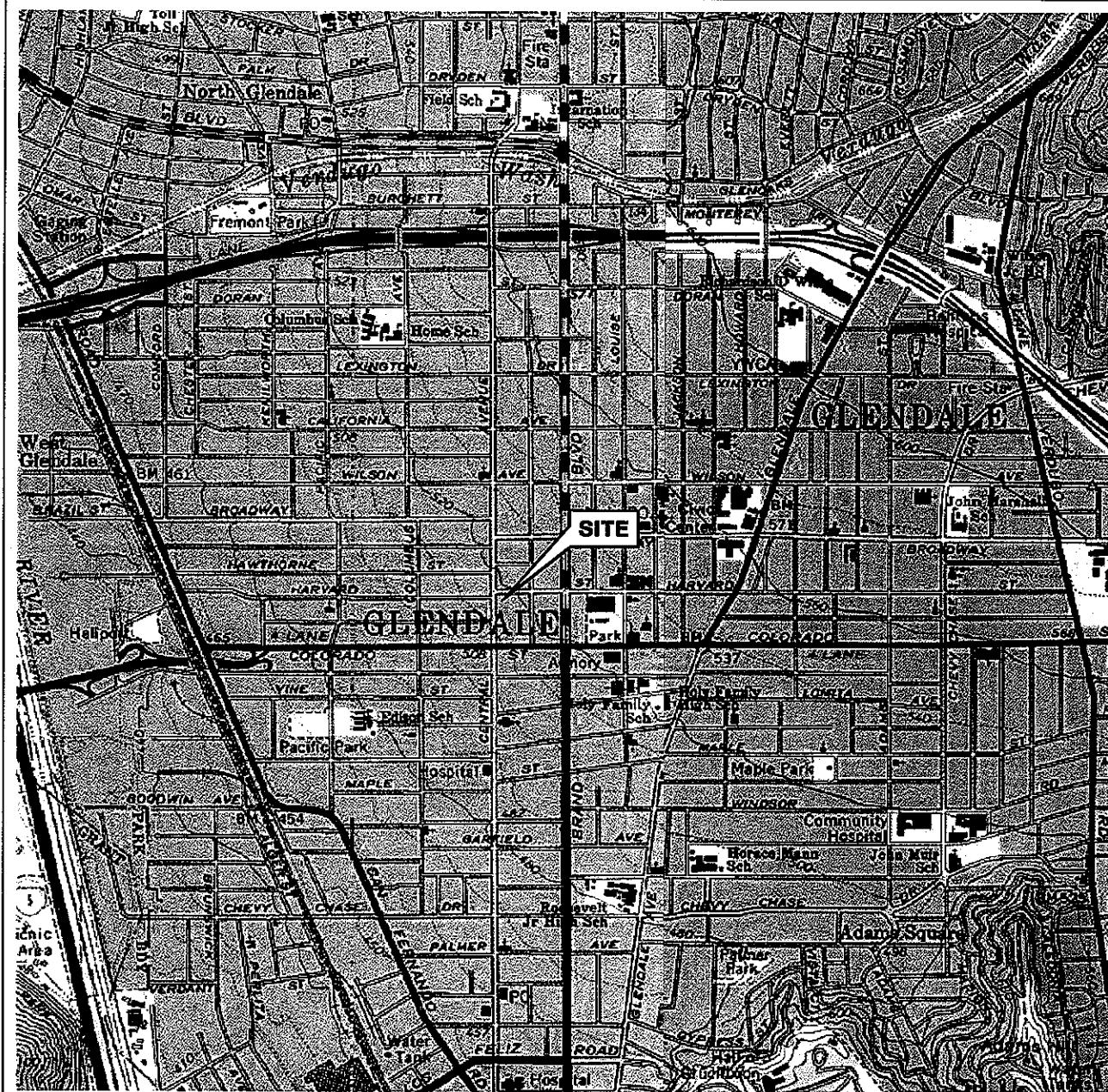
**Formal Site Closure Request**

Former 76 Station 0353

March 10, 2006

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**FIGURES**



0    1/4    1/2    3/4    1 MILE

SCALE 1:24,000



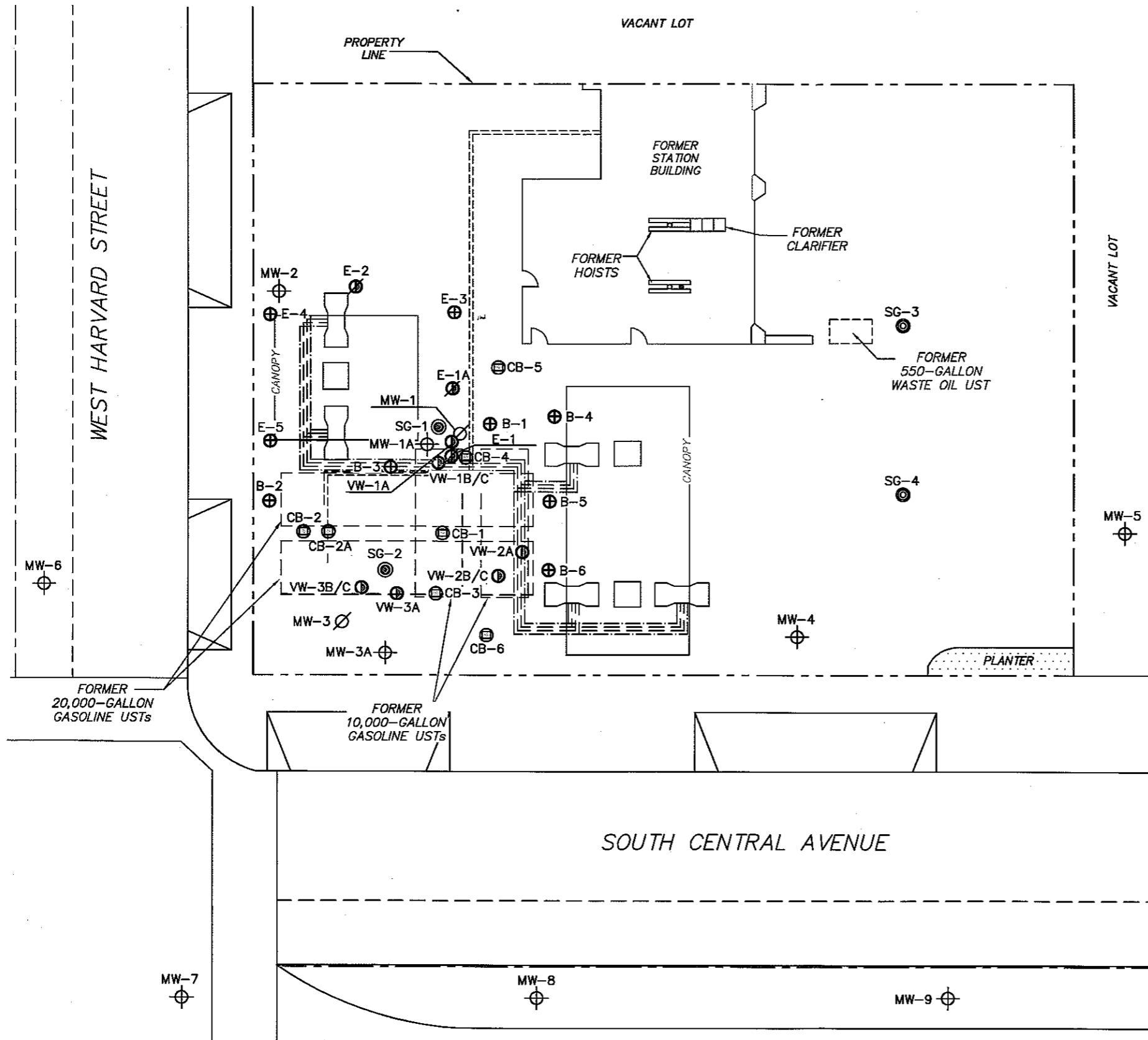
SOURCE:

United States Geological Survey  
7.5 Minute Topographic Map:  
Pasadena Quadrangle



**VICINITY MAP**

Former 76 Station 0353  
200 South Central Avenue  
Glendale, California

**LEGEND**

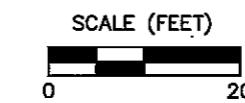
- SG-4 ● Soil Gas Probe
- SG-2 ● Soil Gas Probe Cluster
- VW-3B/C ● Vapor Well
- MW-3 ○ Abandoned Monitoring Well
- E-2 ○ Abandoned Vapor Well
- MW-9 ○ Monitoring Well
- B-6 + Boring
- CB-6 ● Confirmation Boring
- Dispenser Island
- Canopy Support

**NOTES:**

Modified from a map provided by EP Associates, dated 01/05. UST = underground storage tank.

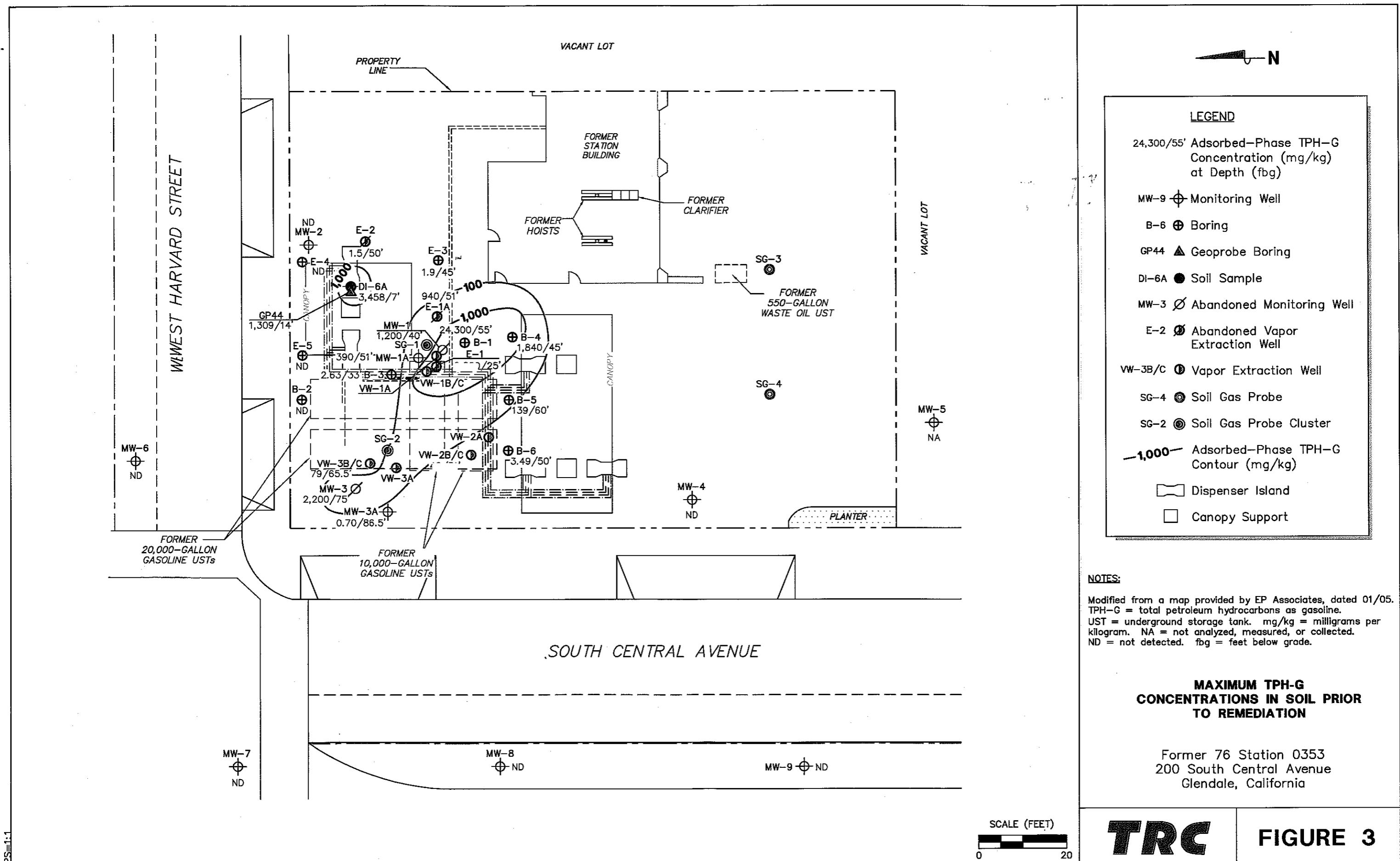
**SITE PLAN**

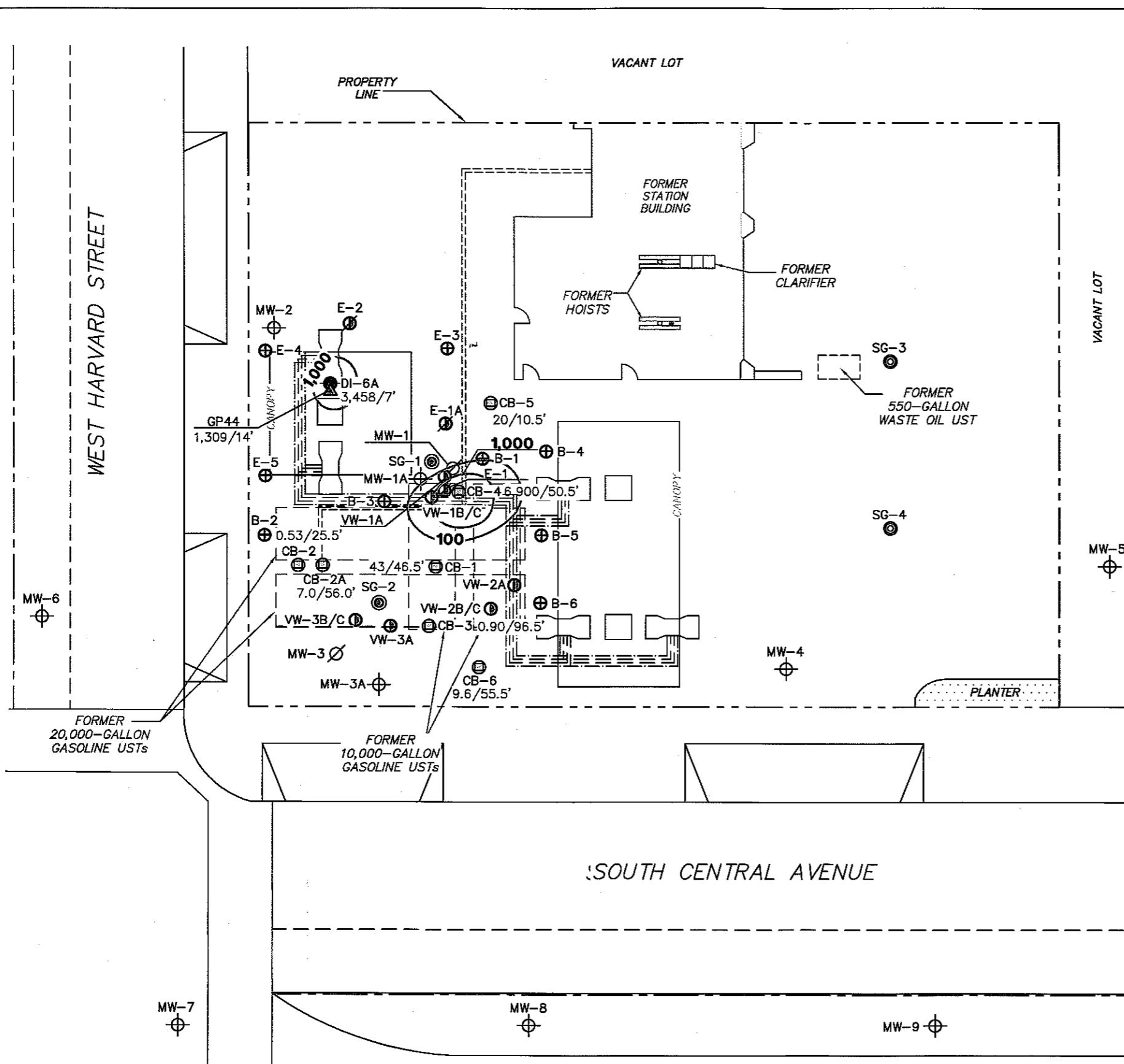
Former 76 Station 0353  
200 South Central Avenue  
Glendale, California



**TRC**

**FIGURE 2**





LEGEND

**6,900/50.5' Adsorbed-Phase TPH-G  
Concentration (mg/kg)  
at Depth (fbg)**

CB-6 Confirmation Boring

MW-9 Monitoring Well

B-6  $\oplus$  Boring

GP44 ▲ Geoprobe Boring

DI-6A ● Soil Sample

MW-3 Ø Abandoned Monitoring Well

E-2 ~~(S)~~ Abandoned Vapo  
Extraction Well

VW-3B/C ① Vapor Extraction Well

SG-4 Ⓡ Soil Gas Probe

SG-2 Ⓡ Soil Gas Probe Cluster

- Dispenser Island
- Canopy Support

NOTES:  
Modified from a map provided by EP Associates,  
dated 01/05. TPH-G = total petroleum  
hydrocarbons as gasoline. UST = underground  
storage tank. mg/kg = milligrams per kilogram.

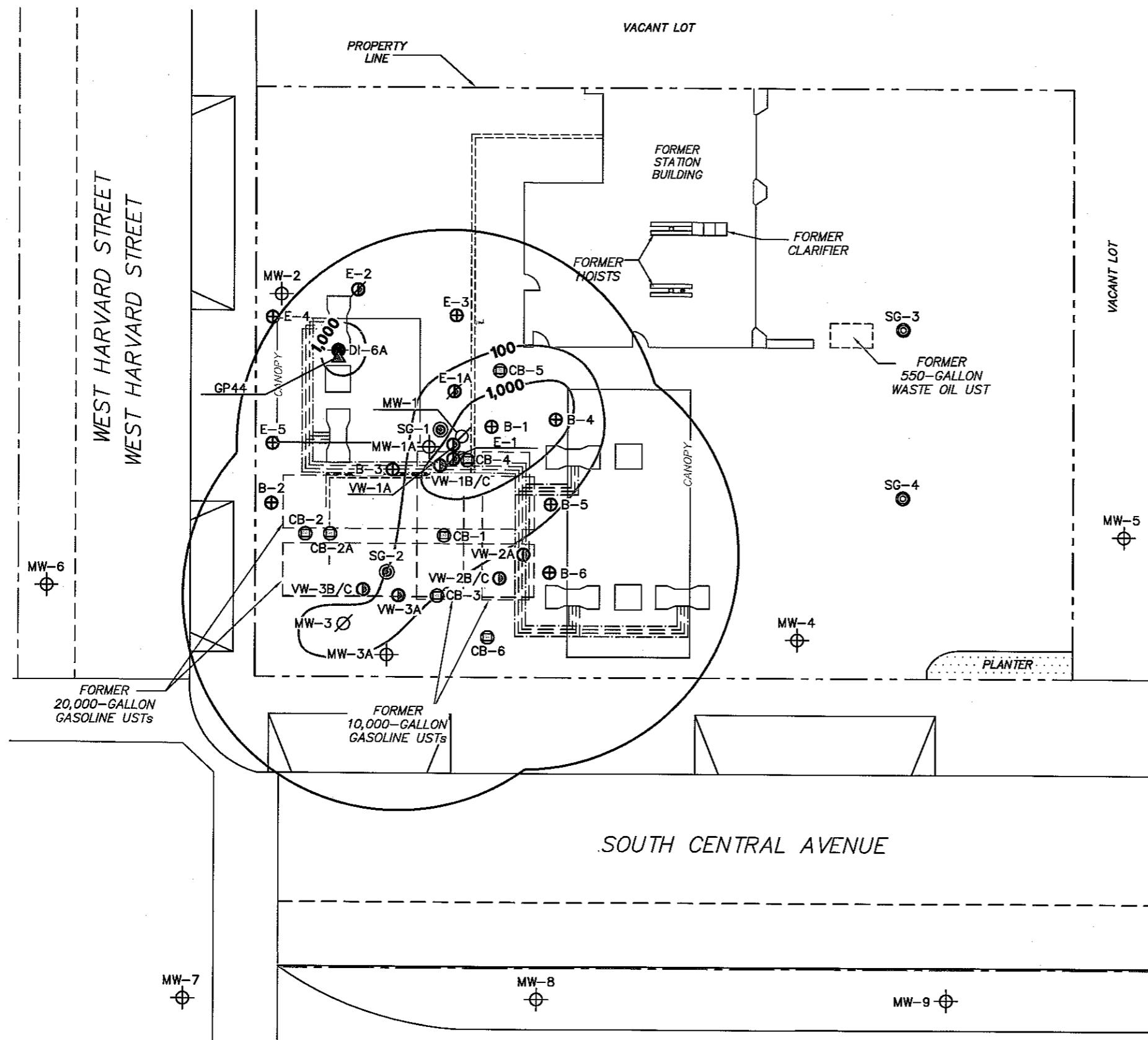
**MAXIMUM TPH-G  
CONCENTRATIONS IN SOIL AFTER  
REMEDIAL ACTION**

Former 76 Station 0353  
200 South Central Avenue  
Glendale, California

SCALE (FEET)  
  
0 2

TRC

FIGURE 4



N

LEGEND

- MW-9 Monitoring Well
- B-6 Boring
- GP44 Geoprobe Boring
- DI-6A Soil Sample
- E-2 Abandoned Vapor Extraction Well
- VW-3B/C Vapor Extraction Well
- SG-4 Soil Gas Probe
- SG-2 Soil Gas Probe Cluster
- CB-6 Confirmation Boring
- MW-3 Abandoned Monitoring Well
- 1,000 Adsorbed-Phase TPH-G Contour (mg/kg)
- Dispenser Island
- Canopy Support
- Vapor Extraction Radius of Influence (36 feet)

NOTES:

Modified from a map provided by EP Associates, dated 01/05. UST = underground storage tank.

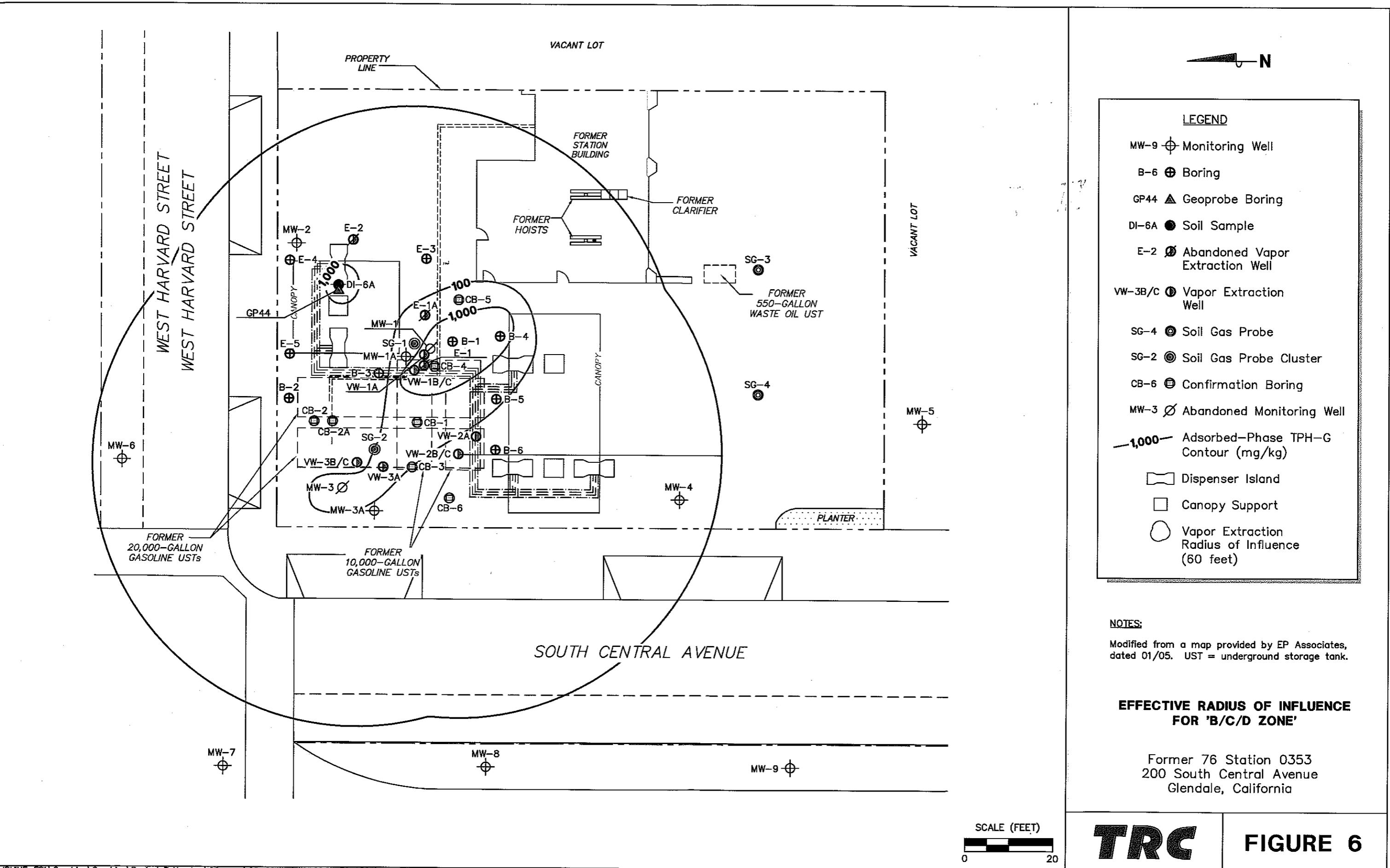
**EFFECTIVE RADIUS OF INFLUENCE FOR 'A ZONE'**

Former 76 Station 0353  
200 South Central Avenue  
Glendale, California

SCALE (FEET)  
0 20

**TRC**

**FIGURE 5**



**Formal Site Closure Request**

Former 76 Station 0353

March 10, 2006

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**APPENDIX A**

**RESULTS OF LABORATORY ANALYSIS OF SOIL  
AND VAPOR SAMPLES FROM PREVIOUS INVESTIGATIONS**

**Formal Site Closure Request**

Former 76 Station 0353

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**APPENDIX A**

**RESULTS OF LABORATORY ANALYSIS OF SOIL  
AND VAPOR SAMPLES FROM PREVIOUS INVESTIGATIONS**

Compiled from Emcon Remedial Action Plan, March 1996

- Table 1: Summary of Tank Closure Soil Analytical Results  
Table 2: Summary of Site Assessment Soil Analytical Results  
Figure 2: Site Plan

Compiled from EP Associates Subsurface Investigation, March 2004

- Table II: Summary of Analytical Results of Soil Samples-Hollow-Stem Auger Borings  
Table III: Summary of Analytical Results of Soil Samples-Geoprobe Borings

Compiled from EP Associates Groundwater Assessment Report, September 2004

- Table 1: Summary of Analytical Results of Soil Samples  
Table 2: Results of Detected CAM Metals

Compiled from EP Associates Additional Groundwater Assessment, January 2005

- Table 1: Summary of Analytical Results of Soil Samples  
Table 2: Results of Detected CAM Metals

Compiled from TRC Underground Storage Tank Closure Report, October 2005

- Table 1: Results of Laboratory Analysis of Soil Samples

Compiled from TRC Additional Site Assessment Report, December 2005

- Table 1: Results of Laboratory Analysis of Soil Samples

Compiled from the TRC Human Health Risk Assessment Report, January 2006

- Table 1: Results of Laboratory Analysis of Soil Vapor Samples

Compiled from the TRC Report of Remediation and Confirmation Sampling, January 2006

- Table 1: Results of Laboratory Analysis of Vapor Samples  
Table 2: Results of Laboratory Analysis of Soil Samples-Confirmation Borings

**TABLE 1**  
Summary of Tank Closure: Soil Analytical Results

**Unocal Station 0353**  
200 South Central Avenue  
Glendale, California

Sample	Date Sampled	Sample Depth (Feet)	TPH (1) (mg/kg)	TRPH (2) (mg/kg)	Benzene(3) (mg/kg)	Toluene(3) (mg/kg)	Ethylbenzene(3) (mg/kg)	Total Xylenes(3) (mg/kg)	Laboratory	Reference
BT-1	7/21/94	16	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
BT-2	7/21/94	16	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
BT-3	7/21/94	16	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
BT-4	7/21/94	16	998	--	0.810	2.199	2.969	64.410	Geochem	(A)
BT-4A	7/22/94	20	ND(1)	--	ND(0.005)	0.006	0.007	0.059	Geochem	(A)
BT-5	7/21/94	16	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
BT-6	7/21/94	16	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
BT-7	7/21/94	16	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
BT-8	7/21/94	16	1,295	--	0.607	11.349	14.288	118.328	Geochem	(A)
BT-8A	7/22/94	20	683	--	0.246	3.461	1.364	35.428	Geochem	(A)
BT-9	7/21/94	9	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
BT-10	7/21/94	9	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-1	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-2	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-3	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-4	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-5	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-6	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-7	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-8	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-9	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-10	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-11	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
CP-12	7/25/94	-	ND(1)	ND(1)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DI-1	7/21/94	3'	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DI-2	7/21/94	3'	ND(1)	--	ND(0.005)	0.007	ND(0.005)	0.014	Geochem	(A)
DI-3	7/21/94	3'	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DI-4	7/21/94	3'	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DI-5	7/21/94	3'	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DI-6	7/21/94	3'	4,562	--	8.224	152.585	61.790	335.310	Geochem	(A)
DI-6A	7/22/94	7'	3,458	--	4.369	89.957	44.988	223.988	Geochem	(A)
DP-1	7/25/94	-	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DP-2	7/25/94	-	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DP-3	7/25/94	-	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DP-4	7/25/94	-	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DP-5	7/25/94	-	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DP-6	7/25/94	-	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DP-7	7/25/94	-	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DP-8	7/25/94	-	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DP-9	7/25/94	-	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
DP-10	7/25/94	-	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
PL-1	7/21/94	3'	ND(1)	--	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	Geochem	(A)
PL-2	7/21/94	3'	ND(1)	--	ND(0.005)	0.009	ND(0.005)	0.011	Geochem	(A)

**Abbreviations:**

-- = not analyzed, or applicable  
 ND = none detected; detection limit shown in parenthesis.  
 Geochem = Geochem Environmental Laboratories.

**Notes:**

- (1) TPH = Total Petroleum Hydrocarbons analyzed by modified U.S.EPA Method 8015.  
 (2) TRPH = Total Recovered Petroleum Hydrocarbons analyzed by EPA 418.1.  
 (3) Analyzed by EPA Method 8020.  
 (A) See attachments or appendices for Certified Analytical Reports.

QA/QC: \_\_\_\_\_

**TABLE 2**  
**Summary of Site Assessment Soil Analytical Results**

**Unocal Station No. 0353**  
**200 South Central Avenue**  
**Glendale, California**

Sample Designation	Sample Depth (feet)	Sample Date	TPH-G (1) (mg/kg)	Benzene (2) (mg/kg)	Toluene (2) (mg/kg)	Ethylbenzene (2) (mg/kg)	Xylenes (2) (mg/kg)	Total Lead (4) (mg/kg)
<b>Exploratory Soil Borings</b>								
E-1	15'	3/28/95	18	<0.005	<0.005	<0.005	<0.01	NA
	20'	3/28/95	2400	<1	1.2	3.0	31	NA
	25'	3/28/95	2800	<2	3.4	4.0	190	<10
E-1A	5'	3/29/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	10'	3/29/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	15'	3/29/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	20'	3/29/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	25'	3/29/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	31.5'	3/29/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	35'	3/29/95	<1	<0.005	0.022	0.015	0.22	NA
	40'	3/29/95	<1	<0.005	0.065	0.0058	0.068	NA
	45'	3/29/95	2.7	0.19	0.58	0.14	0.70	NA
	51'	3/29/95	940	2.9	36	25	150	<10
	55'	3/29/95	1.7	0.10	0.23	0.02	0.16	NA
	60'	3/29/95	<1	<0.005	0.015	<0.005	0.021	NA
	65'	3/29/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	70'	3/29/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	73.5'	3/29/95	<1	<0.005	<0.005	<0.005	<0.01	NA
E-2	5'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	10'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	15'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	20'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	28'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	30'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	35'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	40'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	45'	3/28/95	<1	0.008	0.018	0.011	0.074	NA
	50'	3/28/95	1.5	0.10	0.15	0.049	0.24	<10
	55'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	60'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	65'	3/28/95	<1	<0.005	<0.005	<0.005	<0.01	NA
E-3	5'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	10'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	15'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	20'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	25'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	30'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	35'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	40'	3/30/95	<1	0.0078	0.041	0.0077	0.054	NA
	45'	3/30/95	1.9	0.11	0.24	0.1	0.46	<10
	50'	3/30/95	<1	0.042	0.13	0.021	0.12	NA
	55'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	60'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	65'	3/30/95	<1	<0.005	0.008	<0.005	0.019	NA
	70'	3/30/95	<1	<0.005	0.006	<0.005	0.014	NA

**TABLE 2**  
**Summary of Site Assessment Soil Analytical Results**

**Unocal Station No. 0353**  
**200 South Central Avenue**  
**Glendale, California**

Sample Designation	Sample Depth (feet)	Sample Date	TPH-G (1) (mg/kg)	Benzene (2) (mg/kg)	Toluene (2) (mg/kg)	Ethyl-benzene (2) (mg/kg)	Xylenes (2) (mg/kg)	Total Lead (4) (mg/kg)
E-4	5'	3/31/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	10'	3/31/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	15'	3/31/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	20'	3/31/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	25'	3/31/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	30'	3/31/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	35'	3/31/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	40'	3/31/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	45'	3/31/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	50'	3/31/95	<1	<0.005	<0.005	<0.005	<0.01	<10
E-5	5'	3/30/95	<1	<0.005	<0.005	<0.005	<0.005	NA
	10'	3/30/95	<1	<0.005	<0.005	<0.005	<0.005	NA
	15'	3/30/95	<1	<0.005	<0.005	<0.005	<0.005	NA
	20'	3/30/95	<1	<0.005	<0.005	<0.005	<0.005	NA
	25'	3/30/95	<1	<0.005	<0.005	<0.005	<0.005	NA
	35'	3/30/95	<1	<0.005	<0.005	<0.005	<0.005	NA
	40'	3/30/95	<1	<0.005	<0.005	<0.005	<0.005	NA
	45'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	50'	3/30/95	<1	<0.005	0.007	<0.005	<0.005	NA
	55'	3/30/95	<1	<0.005	<0.005	<0.005	<0.005	NA
	60'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	65'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
	71'	3/30/95	<1	<0.005	<0.005	<0.005	<0.01	NA
<b>Soil Screening Levels (a)</b>			<b>10</b>	<b>0.001</b>	<b>0.1</b>	<b>0.68</b>	<b>1.75</b>	

**Notes:**

Detected concentrations are boldfaced, concentrations exceeding soil screening levels are highlighted.

(1) TPH-G = Total petroleum hydrocarbons as gasoline, analyzed using EPA Method 8015 Modified.

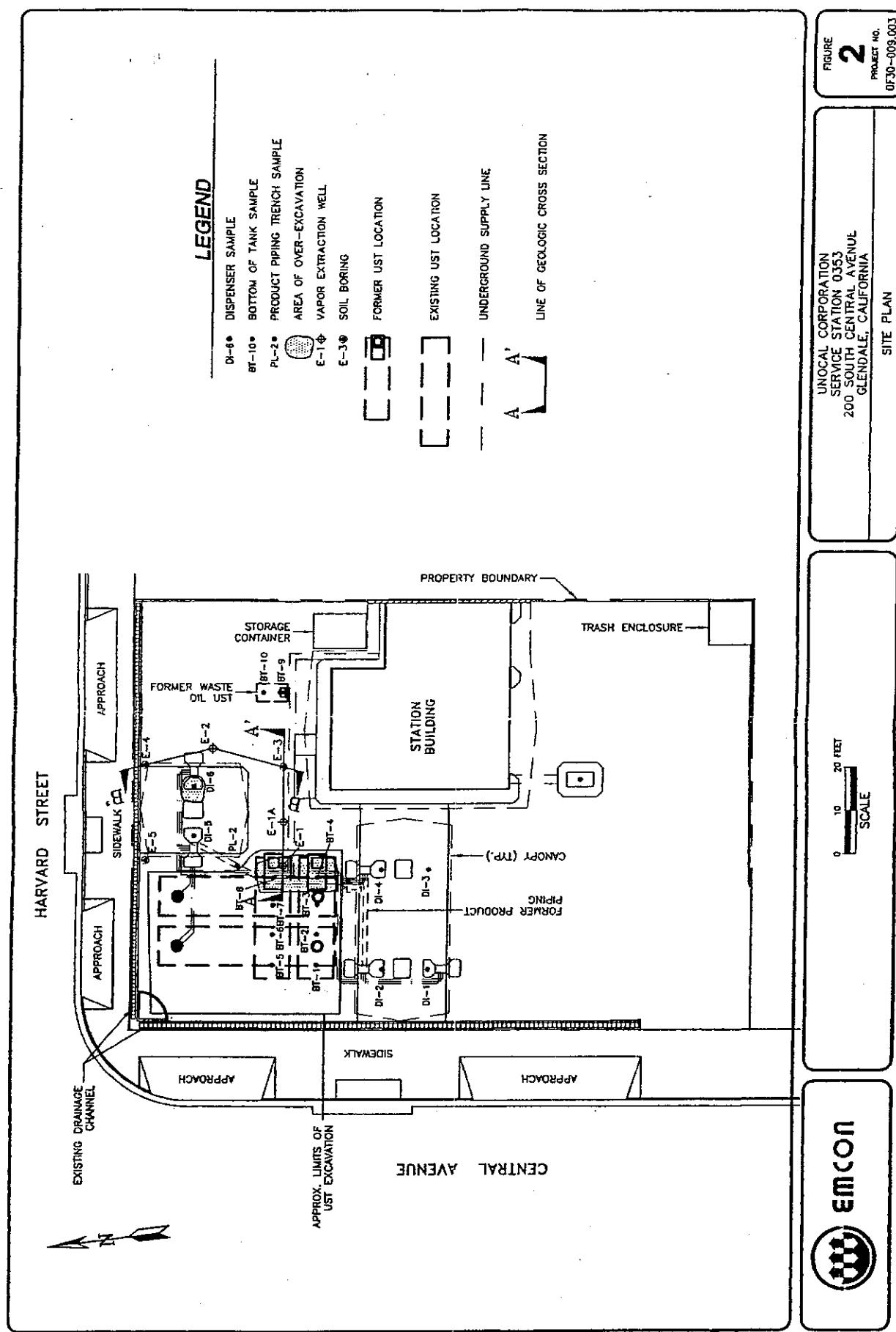
(2) Analyzed using EPA Method 8020.

(3) Analyzed using EPA Method 8015.

(4) Analyzed using EPA Method 7420.

mg/kg = milligrams per kilogram

(a) Based on Level A, Table 1 levels in Interim Guidance for Remediation of Petroleum Impacted Sites (RWQCB, November 1994)



**TABLE II**  
**Summary of Analytical Results of Soil Samples - Hollow-Stem Auger Borings**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Sample No.	8015M (mg/kg) ppm				Benzene (B), Toluene (T), Ethylbenzene (E), Total Xylenes (X) & Oxygenates = MTBE, TBA, DiPE, ETBE, TAME, Ethanol (8260B) (ug/kg), & Organic Lead (mg/kg)
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH (C4-C40)	
B1-5'	--	--	--	--	--
B1-10'	--	--	--	--	--
B1-15'	--	--	--	--	--
B1-20'	--	--	--	--	--
B1-25'	--	--	--	--	--
B1-32'	41.3	ND	ND	41.3	X-118.5
B1-40'	--	--	--	--	--
B1-45'	13,800	514	ND	14,314	T - 1,170,000 E - 671,000 X - 4,150,000
B1-50'	562	39.2	ND	601.2	T - 16,900 E - 19,200 X - 145,900
B1-55'	24,300	563	ND	24,863	B - 75,3000 T - 1,870,000 E - 672,000 X - 3,900,000 Organic Lead = ND
B1-60'	1,590	88.5	20.5	1,699	--
B1-65'	0.640	ND	ND	0.640	--
B1-75'	0.624	ND	ND	0.624	--
B1-85'	2.02	ND	ND	2.02	--
B1-95'	ND	ND	ND	ND	--
B1-105'	ND	ND	ND	ND	MTBE - 5.4
B2-20'	ND	ND	ND	ND	ND
B2-25'	--	--	--	--	--
B2-30'	ND	ND	ND	ND	ND
B2-35'	--	--	--	--	--
B2-40'	ND	ND	ND	ND	ND
B3-12'	--	--	--	--	--
B3-15'	--	--	--	--	--
B3-20'	--	--	--	--	--
B3-25'	--	--	--	--	--
B3-30'	--	--	--	--	--
B3-35'	--	--	--	--	--
B3-40'	--	--	--	--	--

mg/kg (milligrams per kilogram) or parts per million (ppm)

ug/kg (micrograms per kilogram) or parts per billion (ppb)

ND = not detected; -- = not analyzed

**TABLE II (continued)**  
**Summary of Analytical Results of Soil Samples - Hollow-Stem Auger Borings**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Sample No.	8015M (mg/kg) ppm:				Benzene (B), Toluene (T), Ethylbenzene (E), Total Xylenes (X) & Oxygenates = MTBE, TBA, DiPE, ETBE, TAME, Ethanol (8260B) (ug/kg); & Organic Lead (mg/kg)
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH (C4-C40)	
B3-45'	ND	ND	ND	ND	X - 5.5
B3-50'	--	--	--	--	--
B3-55'	2.63	ND	ND	2.63	B - 26.3 T - 405 E - 70.3 X - 572 MTBE - 326 TBA - 181
B3-60'	--	--	--	--	--
B3-65'	ND	ND	ND	ND	MTBE - 26.5
B4-10'	ND	ND	ND	ND	--
B4-20'	--	--	--	--	--
B4-30'	--	--	--	--	--
B4-40'	60.9	19.6	ND	80.5	T - 51.5 X - 68.0
B4-45'	1,840	146	ND	1,986	T - 35,000 E - 54,700 X - 473,000
B4-50'	--	--	--	--	--
B4-55'	1.86	ND	ND	1.86	B - 118 T - 861 E - 141 X - 976 MTBE - 646
B4-60'	--	--	--	--	--
B4-65'	ND	ND	ND	ND	T - 5.6 MTBE - 160
B4-70'	--	--	--	--	--
B4-75'	ND	ND	ND	ND	MTBE - 33.3
B5-20'	ND	ND	ND	ND	--
B5-30'	--	--	--	--	--
B5-40'	--	--	--	--	--

mg/kg (milligrams per kilogram) or parts per million (ppm)

ug/kg (micrograms per kilogram) or parts per billion (ppb)

ND = not detected; -- = not analyzed

**TABLE II (continued)**  
**Summary of Analytical Results of Soil Samples - Hollow-Stem Auger Borings**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Sample No.	8015M (mg/kg) ppm				Benzene (B), Toluene (T), Ethylbenzene (E), Total Xylenes (X) & Oxygenates = MTBE, TBA, DiPT, DiTBE, TAME, Ethanol (8260B) (ug/kg), & Organic Lead (mg/kg)
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH (C4-C40)	
B5-52'	1.24	ND	ND	1.24	T - 34.6 E - 9.5 X - 94.9 MTBE - 49.5 TBA - 66.8
B5-55'	--	--	--	--	--
B5-60'	139	9.7	ND	148.7	T - 3,870 E - 3,760 X - 25,530
B5-65'	--	--	--	--	--
B5-70'	ND	ND	ND	ND	MTBE - 17.7
B6-20'	--	--	--	--	--
B6-30'	--	--	--	--	--
B6-40'	ND	ND	ND	ND	ND
B6-50'	3.49	ND	ND	3.49	T - 245 E - 239 X - 1,927
B6-55'	--	--	--	--	--
B6-60'	0.669	ND	ND	0.669	T - 17.5 E - 17.7 X - 138 MTBE - 16.0
B6-65'	--	--	--	--	--
B6-70'	1.18	ND	ND	1.18	MTBE - 13.1

mg/kg (milligrams per kilogram) or parts per million (ppm)

ug/kg (micrograms per kilogram) or parts per billion (ppb)

ND = not detected; -- = not analyzed

**TABLE III**  
**Summary of Analytical Results of Soil Samples - Geoprobe Borings**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Sample No.	8015M (mg/kg) ppm				VOCs 8260B (ug/kg) ppb	CAM Metals (mg/kg)
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH (C4-C40)		
GP1-1'	--	--	--	--	ND	--
GP1-6'	--	--	--	--	ND	--
GP1-11'	--	--	--	--	--	--
GP2-1'	--	--	--	--	--	--
GP2-6'	--	--	--	--	--	--
GP2-11'	--	ND	ND	ND	--	--
GP3-1'	--	--	--	--	--	--
GP3-6'	--	--	--	--	--	--
GP3-11'	ND	10.8	21.2	32.0	ND	**
GP3-16'	--	--	--	--	ND	**
GP4-1'	--	--	--	--	--	--
GP4-6'	--	--	--	--	--	--
GP4-11'	ND	ND	ND	ND	ND	**
GP4-16'	--	--	--	--	ND	--
GP5-1'	--	--	--	--	--	--
GP5-6'	--	--	--	--	--	--
GP5-11'	ND	64.3	1,160	1,224.3	ND	**
GP5-16'	--	37.2	897	934.2	ND	--
GP6-1'	ND	ND	ND	ND	--	--
GP6-6'	--	--	--	--	--	--
GP6-11'	--	--	--	--	--	--
GP6-16'	--	--	--	--	--	--
GP6-21'	ND	ND	ND	ND	--	--
GP6-26'	--	--	--	--	--	--
GP7-1'	ND	ND	ND	ND	--	--
GP7-6'	--	--	--	--	--	--
GP7-11'	--	--	--	--	--	--
GP7-16'	--	--	--	--	--	--
GP7-21'	ND	ND	ND	ND	--	--
GP7-26'	--	--	--	--	--	--
GP8-1'	ND	ND	ND	ND	--	--
GP8-6'	--	--	--	--	--	--
GP8-11'	--	--	--	--	--	--

mg/kg (milligrams per kilogram) or parts per million (ppm)

ug/kg (micrograms per kilogram) or parts per billion (ppb)

ND = not detected; -- = not analyzed

\*\* See Table V for CAM Metals Results

**TABLE III (continued)**  
**Summary of Analytical Results of Soil Samples - Geoprobe Borings**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Sample No.	801SM (mg/kg) ppm				VOCs 8260B (ug/kg) ppb	CAM Metals (mg/kg)
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH Diesel and Oil		
GP8-16'	--	--	--	--	--	--
GP8-21'	ND	ND	ND	ND	--	--
GP8-26'	--	--	--	--	--	--
GP9-1'	ND	ND	ND	ND	--	--
GP9-6'	--	--	--	--	--	--
GP9-11'	--	--	--	--	--	--
GP10-1'	ND	ND	ND	ND	--	--
GP10-6'	--	--	--	--	--	--
GP10-11'	--	--	--	--	--	--
GP11-1'	ND	ND	ND	ND	--	--
GP11-6'	--	--	--	--	--	--
GP11-11'	--	--	--	--	--	--
GP12-1'	ND	389	4,220	4,609	--	--
GP12-6'	--	ND	9.5	9.5	--	--
GP12-11'	--	--	--	--	--	--
GP13-1'	ND	ND	377	377	--	--
GP13-6'	--	--	--	--	--	--
GP13-11'	--	--	--	--	--	--
GP14-1'	ND	ND	ND	ND	--	--
GP14-6'	--	--	--	--	--	--
GP14-11'	--	--	--	--	--	--
GP15-1'	ND	54.1	1,160	1,214.1	--	--
GP15-6'	--	ND	21.6	21.6	--	--
GP15-11'	--	--	--	--	--	--
GP16-1'	ND	ND	ND	ND	--	--
GP16-6'	--	--	--	--	--	--

mg/kg (milligrams per kilogram) or parts per million (ppm)

ug/kg (micrograms per kilogram) or parts per billion (ppb)

ND = not detected; -- = not analyzed

**TABLE III (continued)**  
**Summary of Analytical Results of Soil Samples - Geoprobe Borings**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Sample No.	801SM (mg/kg) ppm				VOCs 8260B (ug/kg)	CAM Metals (mg/kg)
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH Diesel and Oil		
GP16-11'	ND	ND	ND	ND	--	--
GP16-16'	--	--	--	--	--	--
B16-21'	--	--	--	--	--	--
GP17-1'	ND	380	3,780	4,160	--	--
GP17-6'	--	ND	ND	ND	--	--
GP17-11'	ND	ND	ND	ND	--	--
GP17-16'	--	--	--	--	--	--
GP17-21'	--	--	--	--	--	--
GP18-1'	ND	ND	ND	ND	--	--
GP18-6'	--	--	--	--	--	--
GP18-11'	ND	ND	ND	ND	--	--
GP18-16'	--	--	--	--	--	--
GP18-21'	--	--	--	--	--	--
GP19-1'	ND	357	3,850	4,207	--	--
GP19-6'	--	ND	39.3	39.3	--	--
GP19-11'	ND	ND	23.2	23.2	--	--
GP19-16'	--	--	--	--	--	--
GP19-21'	--	--	--	--	--	--
GP20-1'	--	--	--	--	--	--
GP20-6'	--	--	--	--	--	--
GP20-11'	ND	ND	ND	ND	ND	**
GP20-16'	--	--	--	--	--	--
GP21-1'	ND	ND	34.1	34.1	--	--
GP21-6'	--	--	--	--	--	--
GP21-11'	ND	ND	ND	ND	--	--
GP21-16'	--	--	--	--	--	--
GP21-21'	--	--	--	--	--	--
GP22-1'	ND	377	2,870	3,247	--	--
GP22-6'	--	--	--	--	--	--
GP22-11'	ND	ND	ND	ND	--	--
GP22-16'	--	--	--	--	--	--

mg/kg (milligrams per kilogram) or parts per million (ppm)

ug/kg (micrograms per kilogram) or parts per billion (ppb)

ND = not detected; -- = not analyzed

\*\* See Table V for CAM Metals results

**TABLE III (continued)**  
**Summary of Analytical Results of Soil Samples - Geoprobe Borings**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Sample No.	8015M (mg/kg) ppm				VOCs 8260B (ug/kg) ppb	CAM Metals (mg/kg)
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH (C4-C40)		
GP22-21'	--	--	--	--	--	--
GP23-1'	ND	56.0	793	849	--	--
GP23-6'	--	--	--	--	--	--
GP23-11'	ND	ND	ND	ND	--	--
GP23-16'	--	--	--	--	--	--
GP23-21'	--	--	--	--	--	--
GP24-1'	ND	118	1,330	1,448	--	--
GP24-6'	--	--	--	--	--	--
GP24-11'	ND	ND	ND	ND	--	--
GP24-16'	--	--	--	--	--	--
GP24-21'	--	--	--	--	--	--
GP25-1'	ND	318	2,240	2,558	--	--
GP25-6'	--	--	--	--	--	--
GP25-11'	ND	ND	ND	ND	--	--
GP25-16'	--	--	--	--	--	--
GP25-21'	--	--	--	--	--	--
GP26-1'	ND	116	1,080	1,196	--	--
GP26-6'	--	--	--	--	--	--
GP26-11'	ND	ND	20.6	20.6	--	--
GP26-16'	--	--	--	--	--	--
GP26-21'	--	--	--	--	--	--
GP27-1'	ND	ND	ND	ND	--	--
GP27-6'	--	--	--	--	--	--
GP27-11'	ND	80.8	1,230	1,310.8	--	--
GP27-16'	--	ND	ND	ND	--	--
GP27-21'	--	ND	ND	ND	--	--
GP28-1'	ND	ND	11.9	11.9	--	--
GP28-6'	--	--	--	--	--	--
GP28-11'	ND	ND	168	168	--	--
GP28-16'	--	--	--	--	--	--
GP28-21'	--	--	--	--	--	--

mg/kg (milligrams per kilogram) or parts per million (ppm)

ug/kg (micrograms per kilogram) or parts per billion (ppb)

ND = not detected; -- = not analyzed

**TABLE III (continued)**  
**Summary of Analytical Results of Soil Samples - Geoprobe Borings**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Sample No.	8015M (mg/kg) ppm				VOCs 8260B (ug/kg) ppb	CAM Metals (ug/kg) ppb
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH (C4-C40)		
GP29-1'	ND	ND	ND	ND	--	--
GP29-6'	--	--	--	--	--	--
GP29-11'	--	--	--	--	--	--
GP29-16'	ND	ND	13.0	13.0	--	--
GP30-1'	ND	15.6	453	468.6	--	--
GP30-6'	--	--	--	--	--	--
GP30-11'	--	--	--	--	--	--
GP30-16'	--	--	--	--	--	--
GP30-21'	ND	ND	ND	ND	--	--
GP31-1'	ND	ND	35.5	35.5	--	--
GP31-6'	--	--	--	--	--	--
GP31-11'	--	--	--	--	--	--
GP31-16'	--	--	--	--	--	--
GP31-21'	ND	ND	ND	ND	--	--
GP32-1'	ND	ND	14.4	14.4	--	--
GP32-6'	--	--	--	--	--	--
GP32-11'	--	--	--	--	--	--
GP32-16'	--	--	--	--	--	--
GP32-21'	ND	ND	ND	ND	--	--
GP33-1'	ND	ND	ND	ND	--	--
GP33-6'	--	--	--	--	--	--
GP33-11'	--	--	--	--	--	--
GP33-16'	--	--	--	--	--	--
GP33-21'	ND	ND	8.9	8.9	--	--
GP34-1'	ND	ND	7.5	7.5	--	--
GP34-6'	--	--	--	--	--	--
GP34-11'	--	--	--	--	--	--
GP34-16'	--	--	--	--	--	--
GP34-21'	ND	ND	ND	ND	--	--
GP35-1'	ND	ND	ND	ND	--	--
GP35-6'	--	--	--	--	--	--
GP35-11'	ND	ND	ND	ND	--	--

mg/kg (milligrams per kilogram) or parts per million (ppm)

ug/kg (micrograms per kilogram) or parts per billion (ppb)

ND = not detected; -- = not analyzed

**TABLE III (continued)**  
**Summary of Analytical Results of Soil Samples - Geoprobe Borings**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Sample No.	8015M (mg/kg) ppm				VOCs 8260B (ug/kg) ppb	CAM Metals (mg/kg)
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH (C4-C40)		
GP36-1'	--	--	--	--	--	--
GP36-6'	ND	ND	ND	ND	ND	--
GP36-11'	--	--	--	--	--	--
GP37-1'	ND	ND	ND	ND	--	--
GP37-6'	--	--	--	--	--	--
GP37-11'	--	--	--	--	--	--
GP38-1'	ND	ND	ND	ND	--	--
GP38-6'	--	--	--	--	--	--
GP38-11'	--	--	--	--	--	--
GP39-1'	ND	ND	ND	ND	--	--
GP39-6'	--	--	--	--	--	--
GP39-11'	--	--	--	--	--	--
GP40-1'	ND	42.5	888	930	--	--
GP40-6'	--	ND	ND	ND	--	--
GP40-11'	--	--	--	--	--	--
GP41-1'	ND	12.1	100	112	--	--
GP41-6'	--	--	--	--	--	--
GP41-11'	--	--	--	--	--	--
GP42-1'	ND	35.9	527	563	--	--
GP42-6'	--	--	--	--	--	--
GP42-11'	--	--	--	--	--	--
GP43-1'	ND	ND	ND	ND	--	--
GP43-6'	--	--	--	--	--	--
GP43-11'	--	--	--	--	--	--
GP44-3'	--	--	--	--	--	--
GP44-9'	ND	ND	ND	ND	ND	--
GP44-14'	660	641	8.4	1,309.4	Xylenes = 1,430	--
GP44-19'	--	--	--	--	--	--
GP44-24'	ND	ND	ND	ND	ND	--
GP45-5'	ND	ND	ND	ND	ND	--
GP46-20'	--	--	--	--	--	--
GP46-30'	ND	ND	ND	ND	ND	--
GP47-20'	ND	ND	ND	ND	--	--
GP48-20'	ND	ND	ND	ND	--	--

mg/kg (milligrams per kilogram) or parts per million (ppm); ug/kg (micrograms per kilogram) or parts per billion (ppb)

**Table 1**  
**Summary of Analytical Results of Soil Samples**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Sample No.	8015M (mg/kg) / ppm				BTLEX & Oxygenates MTBE, TBA, DiPT, ETBE, TAME (8021B/8260B) (ug/kg)	VOC's by Method 8260B (ug/kg)
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH (C4-C40)		
MW-1 @ 35'	47.7	12.6	ND	60.3	X - 4.9	
MW-1 @ 40'	1,200	18.7	ND	1,218.7	E - 967 X - 35,900	sec-Butylbenzene - 55.5 Isopropylbenzene - 1,850 Naphthalene - 35,200 n-Propylbenzene - 3,670 1,2,4-Trimethylbenzene - 75,300 1,3,5-Trimethylbenzene - 33,300
MW-1 @ 45'	767	5.45	ND	772.45	E - 9,380 X - 81,500	sec-Butylbenzene - 1,380 Isopropylbenzene - 1,950 Naphthalene - 13,300 n-Propylbenzene - 7,570 1,2,4-Trimethylbenzene - 61,700 1,3,5-Trimethylbenzene - 18,100
MW-1 @ 55'	34.4	ND	ND	34.4 TPH = 10.0 (by Method 418.1)	B - 116 E - 488 X - 3,670 MTBE - 391 TBA - 610	sec-Butylbenzene - 55.4 Isopropylbenzene - 77.3 Naphthalene - 585 n-Propylbenzene - 294 1,2,4-Trimethylbenzene - 2,370 1,3,5-Trimethylbenzene - 668
MW-1 @ 60'	ND	ND	ND	ND	T - 4.9 X - 7.0	Trace
MW-1 @ 65'	0.761	ND	ND	0.761	T - 28.2 E - 18.0 X - 128 MTBE - 17.3	Trace
MW-1 @ 70'	ND	ND	ND	ND	ND	ND
MW-1 @ 75'	ND	ND	ND	ND	X - 2.2 MTBE - 23.9	Trace
MW-2 @ 70'	ND	ND	ND	ND	ND	--
MW-3 @ 65'	ND	ND	ND	ND	ND	--
MW-3 @ 70'	ND	ND	ND	ND	X - 93.5 MTBE - 11.0	
MW-3 @ 75'	2,200	ND	ND	2,200	E - 5.6 X - 40.8 MTBE - 11.6	--
MW-3 @ 85'	ND	ND	ND	ND	MTBE - 64.8	--
MW-3 @ 90'	ND	ND	ND	ND	MTBE - 183	--
MW-3 @ 95'	ND	ND	ND	ND	MTBE - 86.0	--
MW-3 @ 100'	ND	ND	ND	ND	MTBE - 48.5	--
MW-4 @ 100'	ND	ND	ND	ND	ND	ND

mg/kg = milligrams per kilogram; ug/kg = micrograms per kilogram; ND = not detected; -- = not analyzed

**Table 2**  
**Results of Detected CAM Metals**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California  
 (Units = mg/kg)

Constituent	Sample MW-1 @ 55
Barium	78.6
Cadmium	2.00
Chromium	9.10
Cobalt	7.80
Copper	10.7
Lead	3.90
Nickel	6.0
Vanadium	29.2
Zinc	45.1

mg/kg = milligrams per kilogram

**Table 3**  
**Summary of Groundwater Elevation Data**  
 UNOCAL Service Station 0353  
 200 South Central Avenue, Glendale, California

Well No.	Date	Well Casing Elevation (feet above msl)	Depth to Groundwater (feet)	Static Water Elevation (feet above msl)
MW-1	9-10-04	518.789	102.7	416.12
MW-2	9-10-04	518.179	102.3	415.93
MW-3	9-10-04	517.756	101.86	415.96
MW-4	9-10-04	517.310	102.20	416.15
MW-5	9-10-04	516.647	100.63	416.08

**Table 1**  
**Summary of Analytical Results of Soil Samples**  
UNOCAL Service Station 0353  
200 South Central Avenue, Glendale, California

Sample No.	8015M (mg/kg) ppm				BTEX & Oxygenates, MTBE, TBA, DIPE, ETBE, TAME (8260B) (ug/kg)	VOCs by Method 8260B (ug/kg)
	C4-C12 Gasoline	C13-C22 Diesel	C23-C40 Oil	Total TPH (C4-C40)		
MW-6 @ 105'	ND	ND	ND	ND	ND	ND
MW-7 @ 105'	ND	ND	ND	ND	ND	ND
MW-8 @ 105'	ND	ND	ND	ND	ND	ND
MW-9 @ 100'	ND	ND	ND	ND	ND	ND

mg/kg = milligrams per kilogram; ug/kg = micrograms per kilogram; ND = not detected (see Appendix E for laboratory Method Detection Limits)

**Table 2**  
**Results of Detected CAM Metals**  
UNOCAL Service Station 0353  
200 South Central Avenue, Glendale, California  
(Units = mg/kg)

Constituent	Sample MW-6 @ 55'	Sample MW-7 @ 105'	Sample MW-8 @ 105'	Sample MW-9 @ 100'	TTLC mg/kg	STLC mg/l
Arsenic	2.40	ND	ND	ND	500	5
Barium	121	120	86.5	61.0	10,000	100
Chromium	15.1	13.7	8.30	10.2	2,500	560
Cobalt	11.4	10.8	7.60	5.55	8,000	80
Copper	17.6	19.0	11.5	9.95	2,500	25
Nickel	9.0	9.0	5.45	4.75	2,000	20
Vanadium	43.5	43.3	32.3	23.5	2,400	24
Zinc	62.0	56.0	38.6	29.1	5,000	250

mg/kg = milligrams per kilogram; TTLC = Total Threshold Limit Concentration; STLC = Soluble Threshold Limit Concentration; mg/l = milligrams per liter; ND = not detected (see Appendix E for laboratory Method Detection Limits)

Table 1

**RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES**  
**Former 76 Station 0353**

Sample Number	Depth (ft)	TRTH (mg/kg)	TPH-C (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Xylenes (mg/kg)	M-BHT (mg/kg)	DIPPE (mg/kg)	ETHE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Ethanol (mg/kg)	Lead (mg/kg)	EPA Method 8280B	EPA 7411
<b>Gasoline UST Excavation</b>															
TC-1@17.0	7/21/2005	17.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	8.3	
TC-2@17.0	7/21/2005	17.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	6.2	
TC-3@17.0	7/21/2005	17.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<2.5	
TC-4@17.0	7/21/2005	17.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<2.5	
TC-5@17.0	7/21/2005	17.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<2.5	
TC-6@17.0	7/21/2005	17.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<2.5	
TC-7@17.0	7/21/2005	17.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<2.5	
TC-8@17.0	7/21/2005	17.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<2.5	
<b>Waste Oil UST Excavation</b>															
WO-1@7.0	7/18/2005	7.0	55	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	3.4	
WO-2@8.0	7/18/2005	8.0	790	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	13	
<b>Dispensers</b>															
D-1@3.0	7/18/2005	3.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	
D-2@3.5	7/18/2005	3.5	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	
D-3@4.0	7/18/2005	4.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	
D-4@3.0	7/18/2005	3.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	
D-5@3.5	7/18/2005	3.5	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	
<b>Product Lines</b>															
PL-1@2.5	7/18/2005	2.5	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	
PL-2@3.0	7/18/2005	3.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	
PL-3@3.5	7/18/2005	3.5	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	
PL-4@4.0	7/18/2005	4.0	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	
PL-5@3.5	7/18/2005	3.5	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	
PL-6@3.5	7/18/2005	3.5	-	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	-	

Table 1

**RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES**  
**Former 76 Station 0353**

Sample Number	Sample Depth (cm)	Date	Total		Toluene		MTBE		DiPE		tBPE		TAME		TBA		Ethanol		Lead (mg/kg)	
			TRPH (mg/kg)	TPH-G (mg/kg)	Fulvic (mg/kg)	benzene (mg/kg)	MTBE (mg/kg)	benzene (mg/kg)	DiPE (mg/kg)	tBPE (mg/kg)	DiPE (mg/kg)	tBPE (mg/kg)	TAME (mg/kg)	TAME (mg/kg)	EPA Method 8260B	EPA Method 8260B	EPA 7411	EPA 7411	EPA 7411	EPA 7411
<b>TPA 418.1</b>																				
VL-1@4.0	7/18/2005	4.0	--	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<0.50	--	
VL-2@3.5	7/18/2005	3.5	--	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<0.50	--	
VL-3@3.5	7/18/2005	3.5	--	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<0.50	--	
<b>Vent Lines</b>																				
H-1@9.0	7/18/2005	9.0	ND<10	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<0.50	--	
H-2@8.5	7/21/2005	8.5	ND<10	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<0.50	--	
<b>Hydraulic Hoists</b>																				
C-1@5.5	7/21/2005	5.5	ND<10	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<0.50	--	
C-2@5.5	7/21/2005	5.5	ND<10	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<0.50	--	
<b>Clarifier</b>																				
IS-1	7/29/2005	--	--	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<0.50	--	
IS-2	7/29/2005	--	--	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<0.50	--	
IS-3	7/29/2005	--	--	ND<0.50	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.025	ND<0.50	ND<0.50	--	
<b>Imported Backfill Material</b>																				
TBA = t-butyl alcohol ND = non detect above the Method Detection Limit (MDL) mg/kg = milligrams per kilogram fbg = feet below grade -- = not analyzed UST = underground storage tank																				

NOTES:  
 TRPH = total recoverable petroleum hydrocarbons  
 TPH-G = total petroleum hydrocarbons as gasoline  
 MTBE = methyl tertiary butyl ether  
 DiPE = di-isopropyl ether  
 ETBE = ethyl t-butyl ether  
 TAME = t-amyl methyl ether  
 TBA = t-butyl alcohol  
 ND = non detect above the Method Detection Limit (MDL)  
 mg/kg = milligrams per kilogram  
 fbg = feet below grade  
 -- = not analyzed  
 UST = underground storage tank

Table 1

**RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES**  
Former 76 Station 0353

Wd Number	Sample Date	Depth (ft.)	Depth (in.)	Bentene (ppm)	Toluene (ppm)	Xylene (ppm)	MIBK (ppm)	DPE (ppm)	TPE (ppm)	TAME (ppm)	TBA (ppm)	Benzene Concen. (ppm/LB) Total	
												IRAN Method 3230B	IRAN Method 3230B
MW-1A	8/18/2005	6.0	0.30	ND<0.00085	ND<0.0015	ND<0.0014	ND<0.0056	ND<0.00059	ND<0.00019	ND<0.00029	ND<0.034	ND<0.38	ND<0.026
	8/18/2005	11.5	ND<0.14	ND<0.00067	ND<0.0012	ND<0.0011	ND<0.0044	ND<0.00076	ND<0.00046	ND<0.00015	ND<0.0023	ND<0.27	ND<0.30
	16.0	0.25	<b>0.0010<sup>J</sup></b>	ND<0.0012	ND<0.0011	ND<0.0011	ND<0.0046	ND<0.00077	ND<0.00047	ND<0.0015	ND<0.0024	ND<0.27	ND<0.31
	21.0	0.24	ND<0.00072	ND<0.0012	ND<0.0012	ND<0.0012	ND<0.0048	ND<0.00082	ND<0.00050	ND<0.0016	ND<0.0025	ND<0.29	ND<0.33
	26.5	ND<0.13	ND<0.00061	ND<0.0011	ND<0.00097	ND<0.00040	ND<0.00069	ND<0.00042	ND<0.0014	ND<0.0021	ND<0.024	ND<0.28	ND<0.30
	30.5	0.55	<b>0.0021<sup>J</sup></b>	<b>0.0048</b>	<b>0.0014<sup>J</sup></b>	<b>0.0044</b>	<b>0.00044</b>	<b>ND&lt;0.00075</b>	<b>ND&lt;0.00046</b>	<b>ND&lt;0.0015</b>	<b>ND&lt;0.0023</b>	<b>ND&lt;0.026</b>	<b>ND&lt;0.30</b>
	40.5	21.0	ND<0.00064	<b>0.039</b>	0.17	<b>3.8</b>	<b>ND&lt;0.00073</b>	<b>ND&lt;0.00045</b>	<b>ND&lt;0.0015</b>	<b>ND&lt;0.00022</b>	<b>ND&lt;0.026</b>	<b>ND&lt;0.29</b>	
	45.5	28.0	ND<0.00065	0.29	1.4	1.1	ND<0.00074	ND<0.00045	ND<0.0015	ND<0.00023	ND<0.026	ND<0.30	
	51.0	39.0	<b>0.028</b>	1.5	3.4	27	ND<0.00080	ND<0.00049	ND<0.0016	ND<0.00024	ND<0.028	ND<0.32	
	56.5	6.7	<b>0.0034<sup>J</sup></b>	<b>0.055</b>	0.017	0.11	<b>0.017</b>	ND<0.00046	ND<0.0015	ND<0.0023	ND<0.026	ND<0.30	
	61.5	0.88	0.0053	0.079	0.023	0.15	0.010	ND<0.00046	ND<0.0015	ND<0.0023	ND<0.026	ND<0.30	
	66.0	2.0	<b>0.0019<sup>J</sup></b>	<b>0.037</b>	0.021	0.14	<b>0.010</b>	ND<0.00048	ND<0.0016	ND<0.0024	ND<0.028	ND<0.31	
	70.5	1.2	<b>0.0039<sup>J</sup></b>	<b>0.081</b>	0.041	0.28	<b>0.011</b>	ND<0.00043	ND<0.0014	ND<0.0022	ND<0.025	ND<0.28	
	76.0	0.22	ND<0.00068	<b>0.0029<sup>J</sup></b>	<b>0.0011<sup>J</sup></b>	<b>0.0067<sup>J</sup></b>	<b>0.042</b>	ND<0.00047	ND<0.0015	ND<0.0024	ND<0.027	ND<0.31	
	81.0	0.17 <sup>J</sup>	ND<0.00071	<b>0.0040<sup>J</sup></b>	<b>0.0011</b>	<b>0.0066<sup>J</sup></b>	<b>0.051</b>	ND<0.00049	ND<0.0016	ND<0.0025	ND<0.028	ND<0.32	
	86.0	1.3	<b>0.0030<sup>J</sup></b>	<b>0.055</b>	<b>0.020</b>	<b>0.14</b>	<b>0.056</b>	ND<0.00045	ND<0.0015	ND<0.0022	ND<0.026	ND<0.29	
	91.5	0.23	ND<0.00062	0.0971	<b>0.0022<sup>J</sup></b>	0.014	<b>0.0047</b>	ND<0.00043	ND<0.0014	ND<0.0021	ND<0.025	ND<0.28	
	96.0	0.28	<b>0.0010<sup>J</sup></b>	0.016	0.0050	0.032	0.046	ND<0.00039	ND<0.0013	ND<0.0019	ND<0.022	ND<0.25	
	101.0	0.20	ND<0.00059	<b>0.0044</b>	<b>0.0014<sup>J</sup></b>	<b>0.0096</b>	<b>0.0043</b>	ND<0.00041	ND<0.0013	ND<0.0020	ND<0.023	ND<0.27	
	106.5	0.23	<b>0.0017<sup>J</sup></b>	<b>0.010</b>	<b>0.0033<sup>J</sup></b>	<b>0.019</b>	<b>0.0031<sup>J</sup></b>	ND<0.00041	ND<0.0013	ND<0.0020	ND<0.024	ND<0.27	
	111.5	0.26	<b>0.0011<sup>J</sup></b>	0.011	<b>0.0035<sup>J</sup></b>	0.022	<b>0.0034<sup>J</sup></b>	ND<0.00039	ND<0.0013	ND<0.0019	ND<0.022	ND<0.25	
	116.0	0.21	ND<0.00055	<b>0.0092</b>	<b>0.0032<sup>J</sup></b>	<b>0.020</b>	<b>0.0024<sup>J</sup></b>	ND<0.00038	ND<0.0013	ND<0.0019	ND<0.022	ND<0.25	
MW-3A	8/15/2005	5.5	0.20	ND<0.00064	ND<0.0011	ND<0.0010	ND<0.0043	ND<0.00073	ND<0.00045	ND<0.0015	ND<0.0022	ND<0.026	ND<0.29
	8/15/2005	10.5	0.21	ND<0.00069	ND<0.0012	ND<0.0011	ND<0.0046	ND<0.00079	ND<0.00048	ND<0.0016	ND<0.0024	ND<0.028	ND<0.31
	15.5	ND<0.14	ND<0.00068	ND<0.0012	ND<0.0011	ND<0.0015	ND<0.0045	ND<0.00077	ND<0.00047	ND<0.0015	ND<0.0023	ND<0.027	ND<0.31
	21.0	ND<0.14	ND<0.00065	ND<0.0011	ND<0.0010	ND<0.0014	ND<0.0044	ND<0.00074	ND<0.00045	ND<0.0015	ND<0.0023	ND<0.026	ND<0.30
	26.5	ND<0.15	ND<0.00070	ND<0.0012	ND<0.0011	ND<0.0017	ND<0.0047	ND<0.00079	ND<0.00048	ND<0.0016	ND<0.0024	ND<0.028	ND<0.32
	31.0	ND<0.15	ND<0.00070	ND<0.0012	ND<0.0011	ND<0.0016	ND<0.0046	ND<0.00079	ND<0.00048	ND<0.0016	ND<0.0024	ND<0.028	ND<0.32
	36.0	ND<0.14	ND<0.00067	ND<0.0012	ND<0.0011	ND<0.0015	ND<0.0045	ND<0.00076	ND<0.00047	ND<0.0015	ND<0.0023	ND<0.027	ND<0.30
	41.0	<b>0.34</b>	ND<0.00072	ND<0.0012	ND<0.0011	ND<0.0014	ND<0.0048	ND<0.00081	ND<0.00050	ND<0.0016	ND<0.0025	ND<0.029	ND<0.33
	46.0	ND<0.14	ND<0.00064	ND<0.0011	ND<0.0010	ND<0.0010	ND<0.0043	ND<0.00073	ND<0.00044	ND<0.0015	ND<0.0022	ND<0.026	ND<0.29
	51.0	0.25	ND<0.00066	ND<0.0011	<b>0.0021<sup>J</sup></b>	<b>0.0058<sup>J</sup></b>	<b>ND&lt;0.00075</b>	<b>ND&lt;0.00046</b>	<b>ND&lt;0.0015</b>	<b>ND&lt;0.0023</b>	<b>ND&lt;0.026</b>	<b>ND&lt;0.30</b>	
	56.5	0.19	ND<0.00057	ND<0.00099	ND<0.0091	<b>0.0019<sup>J</sup></b>	<b>0.0038</b>	<b>ND&lt;0.00040</b>	<b>ND&lt;0.00013</b>	<b>ND&lt;0.00020</b>	<b>ND&lt;0.023</b>	<b>ND&lt;0.26</b>	
	61.0	ND<0.16	ND<0.00074	ND<0.0013	ND<0.0012	ND<0.0049	ND<0.00083	ND<0.00051	ND<0.00017	ND<0.00026	ND<0.029	ND<0.33	

Table 1

**RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES**  
**Former 76 Station 0353**

Well Number	Sample Date	Depth (ft)	TPEH		Toluene		Ethylbenzene		MTHL		DPE		ERPH		TAME		TBA		Ethanol	
			mg/kg	ppm	mg/kg	ppm	mg/kg	ppm	mg/kg	ppm	mg/kg	ppm	mg/kg	ppm	mg/kg	ppm	mg/kg	ppm	mg/kg	ppm
MW-3A (cont'd)	8/15/2005	65.5	0.23	ND<0.00075	ND<0.0013	ND<0.0012	ND<0.0050	ND<0.00084	ND<0.00052	ND<0.00017	ND<0.00026	ND<0.030	ND<0.34	ND<0.00042	ND<0.00042	ND<0.00014	ND<0.00021	ND<0.024	ND<0.27	
	8/15/2005	71.5	0.15 <sup>j</sup>	ND<0.00060	ND<0.010	ND<0.0097	ND<0.0040	0.0043	ND<0.0043	ND<0.00042	ND<0.00014	ND<0.021	ND<0.27	ND<0.00051	ND<0.00051	ND<0.0017	ND<0.00017	ND<0.030	ND<0.34	
	8/15/2005	76.0	0.23	ND<0.00074	ND<0.013	ND<0.0012	ND<0.0049	ND<0.00084	ND<0.00053	ND<0.0017	ND<0.00026	ND<0.030	ND<0.34	ND<0.00053	ND<0.00053	ND<0.0017	ND<0.00017	ND<0.031	ND<0.35	
	8/15/2005	81.5	ND<0.16	ND<0.00076	ND<0.013	ND<0.0012	ND<0.0051	0.012	ND<0.00053	ND<0.0017	ND<0.00027	ND<0.031	ND<0.35	ND<0.00051	ND<0.00051	ND<0.0015	ND<0.00015	ND<0.026	ND<0.30	
	8/15/2005	86.5	0.70	ND<0.00065	ND<0.011	ND<0.0010	ND<0.0044	0.22	ND<0.00045	ND<0.0015	ND<0.00023	ND<0.026	ND<0.30	ND<0.00045	ND<0.00045	ND<0.0010	ND<0.00010	ND<0.026	ND<0.29	
	8/15/2005	91.5	0.65	ND<0.00064	ND<0.011	ND<0.0010	ND<0.0043	0.40	ND<0.00045	ND<0.0015	ND<0.00022	ND<0.026	ND<0.29	ND<0.00045	ND<0.00045	ND<0.0010	ND<0.00010	ND<0.026	ND<0.29	
	8/15/2005	96.0	0.43	ND<0.00058	ND<0.010	ND<0.0092	ND<0.0038	0.27	ND<0.00040	ND<0.0013	ND<0.00020	ND<0.023	ND<0.26	ND<0.00042	ND<0.00042	ND<0.0014	ND<0.00021	ND<0.024	ND<0.28	
	8/15/2005	101.0	0.38	ND<0.00061	ND<0.011	ND<0.00098	ND<0.0041	0.25	ND<0.00042	ND<0.0014	ND<0.00021	ND<0.023	ND<0.26	ND<0.00039	ND<0.00039	ND<0.0013	ND<0.00020	ND<0.023	ND<0.26	
	8/15/2005	106.5	ND<0.12	ND<0.00056	0.0011 <sup>j</sup>	ND<0.0090	ND<0.0038	0.0090 <sup>j</sup>	ND<0.00045	ND<0.0015	ND<0.00023	ND<0.023	ND<0.26	ND<0.00045	ND<0.00045	ND<0.0015	ND<0.00023	ND<0.026	ND<0.30	
	8/15/2005	111.5	ND<0.14	ND<0.00065	ND<0.011	ND<0.0010	ND<0.0044	0.0043 <sup>j</sup>	ND<0.00047	ND<0.0015	ND<0.00024	ND<0.027	ND<0.31	ND<0.00047	ND<0.00047	ND<0.0015	ND<0.00024	ND<0.027	ND<0.31	
	8/15/2005	116.5	ND<0.15	ND<0.00068	ND<0.012	ND<0.0011	ND<0.0045	ND<0.00077	ND<0.0017	ND<0.00047	ND<0.0015	ND<0.00024	ND<0.027	ND<0.31	ND<0.00077	ND<0.00077	ND<0.0015	ND<0.00024	ND<0.027	ND<0.31
VW-2B/C	8/17/2005	6.0	ND<0.18	ND<0.00086	ND<0.015	ND<0.0014	ND<0.0058	ND<0.0098	ND<0.0060	ND<0.0020	ND<0.0030	ND<0.034	ND<0.39	ND<0.0010	ND<0.0010	ND<0.0061	ND<0.0020	ND<0.035	ND<0.40	
	8/17/2005	11.0	ND<0.19	ND<0.00088	ND<0.015	ND<0.0014	ND<0.0059	ND<0.0099	ND<0.0061	ND<0.0020	ND<0.0031	ND<0.035	ND<0.39	ND<0.0012	ND<0.0012	ND<0.0053	ND<0.0020	ND<0.030	ND<0.34	
	8/17/2005	16.0	ND<0.16	ND<0.00076	ND<0.013	ND<0.0012	ND<0.0050	ND<0.0086	ND<0.0053	ND<0.0017	ND<0.0026	ND<0.030	ND<0.34	ND<0.0013	ND<0.0013	ND<0.0053	ND<0.0028	ND<0.032	ND<0.36	
	8/17/2005	21.5	ND<0.17	ND<0.00080	ND<0.014	ND<0.0013	ND<0.0042	ND<0.0072	ND<0.0044	ND<0.0014	ND<0.0022	ND<0.025	ND<0.29	ND<0.0011	ND<0.0011	ND<0.0045	ND<0.0015	ND<0.023	ND<0.31	
	8/17/2005	25.5	ND<0.13	ND<0.00063	ND<0.011	ND<0.0010	ND<0.0042	ND<0.0077	ND<0.0047	ND<0.0015	ND<0.0023	ND<0.027	ND<0.29	ND<0.0012	ND<0.0012	ND<0.0048	ND<0.0016	ND<0.024	ND<0.31	
	8/17/2005	30.5	0.20	ND<0.00068	ND<0.012	ND<0.0011	ND<0.0045	ND<0.0077	ND<0.0048	ND<0.0016	ND<0.0024	ND<0.028	ND<0.31	ND<0.0011	ND<0.0011	ND<0.0046	ND<0.0079	ND<0.0015	ND<0.31	
	8/17/2005	36.0	ND<0.15	ND<0.00069	ND<0.012	ND<0.0011	ND<0.0046	0.0068	0.0017 <sup>j</sup>	0.0083 <sup>j</sup>	ND<0.0017	ND<0.0022	ND<0.29	ND<0.0013	ND<0.0013	ND<0.0045	ND<0.0015	ND<0.0022	ND<0.29	
	8/17/2005	41.0	0.21	ND<0.00064	ND<0.014	ND<0.0014	ND<0.0042	0.92	0.24	1.3	0.00087 <sup>j</sup>	ND<0.0016	ND<0.0024	ND<0.31	ND<0.0014	ND<0.0014	ND<0.0048	ND<0.0016	ND<0.028	ND<0.31
	8/17/2005	46.0	17	0.014	ND<0.00094	0.61	0.40	1.8	0.0043 <sup>j</sup>	0.0015 <sup>j</sup>	ND<0.0047	ND<0.0015	ND<0.0024	ND<0.31	ND<0.0012	ND<0.0012	ND<0.0052	ND<0.0017	ND<0.030	ND<0.34
	8/17/2005	51.0	42	0.0094	ND<0.00070	0.0069	0.013	0.098	ND<0.00079	ND<0.00048	ND<0.0016	ND<0.0024	ND<0.32	ND<0.0011	ND<0.0011	ND<0.0062	ND<0.0020	ND<0.031	ND<0.32	
	8/17/2005	55.5	1.0	ND<0.00075	0.019	0.014	0.087	0.0015 <sup>j</sup>	0.0022 <sup>j</sup>	0.014	0.0013 <sup>j</sup>	ND<0.0054	ND<0.0018	ND<0.0027	ND<0.0011	ND<0.0011	ND<0.0045	ND<0.0015	ND<0.022	ND<0.35
	8/17/2005	61.0	0.85	ND<0.00078	0.051	0.022	0.13	0.0013	0.0061 <sup>j</sup>	0.016	0.091	ND<0.0054	ND<0.0018	ND<0.0027	ND<0.0011	ND<0.0011	ND<0.0045	ND<0.0015	ND<0.022	ND<0.35
	8/17/2005	65.5	1.6	ND<0.00070	0.069	0.013	0.098	0.0013	0.0061 <sup>j</sup>	0.016	0.036	ND<0.0054	ND<0.0018	ND<0.0027	ND<0.0011	ND<0.0011	ND<0.0045	ND<0.0015	ND<0.022	ND<0.35
	8/17/2005	70.5	0.34	ND<0.00090	0.0044 <sup>j</sup>	0.0022 <sup>j</sup>	0.014	0.0013	0.0012 <sup>j</sup>	0.012	0.39	ND<0.0039	ND<0.0013	ND<0.0019	ND<0.0011	ND<0.0011	ND<0.0044	ND<0.0015	ND<0.022	ND<0.25
	8/17/2005	76.5	0.30	ND<0.00064	0.0062	0.0030 <sup>j</sup>	0.016	0.0012	0.0012 <sup>j</sup>	0.020	0.42	ND<0.00044	ND<0.0015	ND<0.0022	ND<0.0011	ND<0.0011	ND<0.0044	ND<0.0015	ND<0.026	ND<0.29
	8/17/2005	81.0	0.29	ND<0.00077	0.0016 <sup>j</sup>	ND<0.0012	0.011	0.0012	0.0012 <sup>j</sup>	0.020	ND<0.00044	ND<0.0014	ND<0.0022	ND<0.0011	ND<0.0011	ND<0.0044	ND<0.0015	ND<0.024	ND<0.27	
	8/17/2005	86.0	0.48	ND<0.00056	0.0029 <sup>j</sup>	0.0012 <sup>j</sup>	0.0065 <sup>j</sup>	0.0012 <sup>j</sup>	0.0012 <sup>j</sup>	0.020	ND<0.00044	ND<0.0015	ND<0.0022	ND<0.0011	ND<0.0011	ND<0.0044	ND<0.0015	ND<0.024	ND<0.27	
	8/17/2005	91.0	0.63	ND<0.00064	0.0077	0.0034 <sup>j</sup>	0.020	0.0012	0.0012 <sup>j</sup>	0.020	ND<0.00044	ND<0.0015	ND<0.0022	ND<0.0011	ND<0.0011	ND<0.0044	ND<0.0015	ND<0.024	ND<0.27	
VW-3B/C	8/16/2005	6.0	ND<0.13	ND<0.00063	ND<0.011	ND<0.0010	ND<0.0042	ND<0.00044	ND<0.0014	ND<0.00022	ND<0.025	ND<0.29	ND<0.00042	ND<0.00042	ND<0.00071	ND<0.00043	ND<0.00014	ND<0.025	ND<0.29	
	8/16/2005	11.0	ND<0.13	ND<0.00063	ND<0.011	ND<0.0010	ND<0.0042	ND<0.00042	ND<0.0014	ND<0.00022	ND<0.025	ND<0.28	ND<0.00042	ND<0.00042	ND<0.00076	ND<0.00046	ND<0.00015	ND<0.027	ND<0.30	
	8/16/2005	15.5	ND<0.14	ND<0.00067	ND<0.012	ND<0.0011	ND<0.0045	ND<0.00045	ND<0.0014	ND<0.00023	ND<0.023	ND<0.28	ND<0.00042	ND<0.00042	ND<0.00076	ND<0.00046	ND<0.00015	ND<0.027	ND<0.30	
	8/16/2005	21.5	ND<0.14	ND<0.00067	ND<0.012	ND<0.0011	ND<0.0045	ND<0.00045	ND<0.0014	ND<0.00023	ND<0.023	ND<0.28	ND<0.00042	ND<0.00042	ND<0.00076	ND<0.00046	ND<0.00015	ND<0.027	ND<0.30	
	8/16/2005	26.0	ND<0.13	ND<0.00060	ND<0.010	ND<0.00097	ND<0.0040	ND<0.00049	ND<0.0014	ND<0.00021	ND<0.024	ND<0.27	ND<0.00042	ND<0.00042	ND<0.00069	ND<0.00040	ND<0.00015	ND<0.024	ND<0.27	

Table 1

**RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES**  
**Former 76 Station 0355**

Well Number	Sample Date	Depth (ft)	TPH (mg/kg)	Lith.		Total benzene (mg/kg)	MTBE (mg/kg)	DPE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Ethanol (mg/kg)
				benzene (mg/kg)	toluene (mg/kg)						
TPH ANALYTICAL SECTION											
VW-3B/C (cont'd)	8/16/2005	31.0	ND<0.13	ND<0.00062	ND<0.0011	ND<0.00098	ND<0.0041	ND<0.00070	ND<0.0014	ND<0.00021	ND<0.28
	8/16/2005	36.0	ND<0.15	ND<0.00071	ND<0.0012	ND<0.0011	ND<0.0047	ND<0.00080	ND<0.0016	ND<0.00025	ND<0.32
	8/16/2005	41.0	ND<0.13	ND<0.00063	ND<0.0011	ND<0.0010	ND<0.0042	ND<0.00071	ND<0.0014	ND<0.00022	ND<0.28
	8/16/2005	46.0	ND<0.14	ND<0.00064	ND<0.0011	ND<0.0010	ND<0.0043	ND<0.00073	ND<0.0015	ND<0.00022	ND<0.29
	8/16/2005	51.0	0.81	0.0047 <sup>J</sup>	0.067	0.017	0.089	0.0021	ND<0.0018	ND<0.00027	ND<0.31
	8/16/2005	56.0	0.46	ND<0.00065	0.019	0.0073	0.040	ND<0.0074	ND<0.0015	ND<0.00022	ND<0.26
	8/16/2005	61.0	0.52	0.0019 <sup>J</sup>	0.039	0.010	0.052	ND<0.00093	ND<0.0019	ND<0.00028	ND<0.33
	8/16/2005	65.5	79	0.033	1.4	0.87	5.0	0.0039	ND<0.0013	ND<0.00020	ND<0.24
	8/16/2005	71.0	0.51	0.0015 <sup>J</sup>	0.040	0.013	0.073	0.050	ND<0.0045	ND<0.0015	ND<0.26
	8/16/2005	75.5	0.65	0.0010 <sup>J</sup>	0.033	0.013	0.072	0.039	ND<0.0054	ND<0.0018	ND<0.31
	8/16/2005	81.0	0.30	ND<0.00076	0.0030 <sup>J</sup>	0.0014 <sup>J</sup>	0.0979 <sup>J</sup>	0.073	ND<0.0053	ND<0.0017	ND<0.030
	8/16/2005	86.0	0.60	ND<0.00085	0.012	0.0081	0.046	0.021	ND<0.0059	ND<0.0019	ND<0.34
	8/16/2005	91.5	19	0.0022 <sup>J</sup>	ND<0.00099	0.051	0.29	0.63	ND<0.0040	ND<0.0013	ND<0.23

NOTES:

TPH = total ignitable petroleum hydrocarbons

MTBE = methyl tertiary butyl ether

DPE = di-isopropyl ether

TAME = tertiary-amyl methyl ether

ETBE = ethyl tertiary-butyl ether

TBA	= tertiary-butyl alcohol
ND	= not detected at the detection limit indicated
fig	= feet below grade
mg/kg	= milligrams per kilogram
J	= estimated value; between the Practical Quantitation Limit and Method Detection Limit

Table 1

**RESULTS OF LABORATORY ANALYSIS OF SOIL VAPOR SAMPLES**  
**Former 76 Station 0353**

Well Number	Sample Date	Depth (ft)	TPH-G (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Total Xylenes (ppm)	MTBE (ppm)	ETBE (ppm)	DPE (ppm)	TAME (ppm)	TBA (ppm)
SG-1@15.0	8/22/2005	15.0	2.0	ND<0.0020	0.010	0.0054	0.029	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0020	0.013
SG-1@20.0	8/22/2005	20.0	2.3	0.0020	0.0090	0.0041	0.021	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0020	0.015
SG-1@25.0	8/22/2005	25.0	1.9	ND<0.0020	0.011	0.0038	0.018	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0020	0.022
SG-2@15.0	8/22/2005	15.0	1.7	ND<0.0020	0.020	0.0091	0.047	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.010
SG-2@20.0	8/22/2005	20.0	2.0	ND<0.0020	0.018	0.013	0.069	0.0064	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.010
SG-2@25.0	8/22/2005	25.0	2.2	ND<0.0020	0.019	0.012	0.063	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.010
SG-3@15.0	8/22/2005	15.0	2.1	ND<0.0020	0.014	0.0077	0.039	0.0020	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.010
SG-4@15.0	8/22/2005	15.0	1.9	0.0021	0.021	0.0059	0.024	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.010

NOTES:  
TPH-G = total petroleum hydrocarbons as gasoline  
MTBE = methyl tertiary butyl ether  
DPE = di-isopropyl ether  
TAME = tertiary-amyl methyl ether  
ETBE = ethyl tertiary-butyl ether

TBA = tertiary-butyl alcohol  
ND = not detected at the detection limit indicated  
Bg = feet below grade  
mg/kg = milligrams per kilogram

**RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES**  
**Former 76 Station 0353**

Sample Number	Sampling Date	Sample Time	TPH/C (ppm)	Recoveries (percent)	Volume (ml)	Volume (ml)	Ethyl		Methyl (ppmv)	Dimethyl (ppmv)	TMA (ppmv)	TBA (ppmv)
							Sample (ml)	Blank (ml)				
VW-1A-Start	9/27/2005	0.5	12:15	200	<b>0.73</b>	7.8	3.0	3.6	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-1A	10/1/2005	95.0	10:45	230	ND<0.20	4.0	3.1	45	ND<0.20	ND<0.20	ND<0.20	ND<1.0
VW-1A	10/3/2005	143.3	11:00	200	ND<0.10	1.6	1.8	38	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-1A	10/7/2005	239.8	11:30	48	ND<0.10	0.65	0.62	13	0.11	ND<0.10	ND<0.10	ND<0.50
VW-1A	10/18/2005	503.3	11:00	34	ND<0.050	0.34	0.44	11	ND<0.050	ND<0.050	ND<0.050	ND<0.25
VW-2A-Start	9/27/2005	0.5	12:15	82	<b>0.37</b>	5.9	2.4	15	<b>0.065</b>	ND<0.050	ND<0.050	ND<0.25
VW-2A	10/1/2005	95.0	10:45	150	ND<0.10	7.1	4.5	32	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-2A	10/3/2005	143.3	11:00	140	ND<0.10	8.6	6.2	41	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-2A	10/7/2005	239.8	11:30	44	ND<0.10	2.4	1.9	14	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-2A	10/18/2005	503.3	11:00	29	ND<0.050	1.7	1.6	11	ND<0.050	ND<0.050	ND<0.050	ND<0.25
VW-3A-Start	9/27/2005	0.5	12:15	14	<b>0.044</b>	0.56	0.27	2.4	<b>0.056</b>	ND<0.0067	ND<0.0067	ND<0.033
VW-3A-End	9/28/2005	24.0	11:45	92	<b>0.39</b>	6.1	2.8	21	ND<0.067	ND<0.067	ND<0.067	ND<0.33
VW-1B-Start	9/27/2005	0.0	14:45	720	<b>3.7</b>	99	18	130	1.8	ND<1.0	ND<1.0	ND<5.0
VW-1B	10/1/2005	92.0	10:45	320	<b>0.28</b>	24	11	74	1.4	ND<0.20	ND<0.20	ND<1.0
VW-1B	10/3/2005	140.3	11:00	300	ND<0.20	18	10	75	1.2	ND<0.20	ND<0.20	ND<1.0
VW-1B	10/7/2005	236.8	11:30	61	ND<0.10	3.7	2.0	16	0.26	ND<0.10	ND<0.10	ND<0.50
VW-1B	10/27/2005	715.3	10:00	88	<b>0.059</b>	4.5	2.0	15	0.55	ND<0.20	ND<0.20	ND<0.25
VW-1B-Start	9/27/2005	0.0	14:45	1,200	<b>6.7</b>	120	31	180	1.2	ND<1.0	ND<1.0	ND<5.0
VW-2B	10/1/2005	92.0	10:45	270	<b>0.40</b>	19	7.5	47	2.8	ND<0.20	ND<0.20	ND<1.0
VW-2B	10/3/2005	140.3	11:00	240	<b>0.24</b>	16	6.4	41	3.1	ND<0.10	ND<0.10	ND<1.0
VW-2B	10/7/2005	236.8	11:30	34	ND<0.10	2.9	1.1	7.5	0.64	ND<0.10	ND<0.10	ND<0.50
VW-2B	10/27/2005	715.3	10:00	77	<b>0.071</b>	5.2	2.1	14	1.1	ND<0.20	ND<0.20	ND<0.20
VW-3B-Start	9/29/2005	24.0	12:45	130	<b>0.42</b>	8.2	3.5	26	0.61	ND<0.10	ND<0.10	ND<0.50
VW-3B	10/1/2005	70.0	10:45	100	<b>0.10</b>	3.4	2.8	21	1.2	ND<0.067	ND<0.067	ND<0.33
VW-3B	10/3/2005	118.3	11:00	68	ND<0.040	1.7	1.9	14	1.3	ND<0.040	ND<0.040	ND<0.20
VW-3B	10/7/2005	214.8	11:30	32	<b>0.032</b>	1.3	0.80	5.9	0.33	ND<0.020	ND<0.020	ND<0.10
VW-3B	10/18/2005	478.3	11:00	15	ND<0.020	0.43	0.30	2.7	0.58	ND<0.020	ND<0.020	ND<0.10
VW-3B	10/27/2005	693.3	10:00	69	<b>0.016</b>	2.5	2.2	15	0.84	ND<0.020	ND<0.020	0.014
VW-1C	10/19/2005	0.0	10:30	7.5	ND<0.12	0.15	<b>0.085</b>	1.0	2.1	ND<0.012	ND<0.012	ND<0.062
VW-1C	10/20/2005	0.5	11:00	9.8	ND<0.10	0.17	0.14	1.5	1.4	ND<0.10	ND<0.10	ND<0.50
VW-2C	10/19/2005	0.0	10:30	7.5	ND<0.040	<b>0.18</b>	0.068	0.55	5.6	ND<0.040	ND<0.040	ND<0.20
VW-2C	10/20/2005	0.5	11:00	7.4	ND<0.025	<b>0.11</b>	<b>0.076</b>	0.71	4.3	ND<0.025	ND<0.025	ND<0.12
VW-3C	10/19/2005	0.0	10:30	4.3	ND<0.033	ND<0.083	ND<0.033	0.15	4.8	ND<0.033	ND<0.033	ND<0.17
VW-3C	10/20/2005	0.5	11:00	5.0	ND<0.020	<b>0.062</b>	<b>0.043</b>	0.44	3.6	ND<0.020	ND<0.020	ND<0.10

**RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES**  
**Former 76 Station 0353**

Sample Number	Sample Date	Length of Extraction (hours)	Sample Time (ppmv)	Toluene		Ethylbenzene		Total Xylenes		MTBE (ppmv)	DPE (ppmv)	ETBE (ppmv)	TAME (ppmv)	IBA (ppmv)
				TPh-G	TPh-A	(ppmv)	(ppmv)	(ppmv)	(ppmv)					
<b>Rebound Testing</b>														
MW-1A	10/20/2005	0.0	11:30	7.6	ND<0.0040	0.20	0.15	1.4	0.11	ND<0.0040	ND<0.0040	ND<0.0040	ND<0.0040	ND<0.020
MW-1A	10/21/2005	20.5	8:00	8.4	ND<0.0050	0.30	0.22	2.0	0.52	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.25
MW-3A	10/20/2005	0.0	11:30	3.4	ND<0.0020	0.066	0.054	0.51	0.066	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0020	0.12
MW-3A	10/21/2005	20.5	8:00	3.8	ND<0.0020	0.081	0.072	0.69	0.18	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.010
System Influent	10/1/2005	95.0	10:45	210	0.16	11	5.4	40	1.2	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50
System Influent	10/3/2005	143.3	11:00	170	ND<0.10	9.4	5.4	42	1.0	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50
System Influent	10/7/2005	239.8	11:30	76	ND<0.10	4.8	2.7	22	0.73	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-1A	11/15/2005	0.5	9:30	120	ND<0.10	3.0	2.1	15.8	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-1A	11/15/2005	6.0	15:00	100	<b>0.072</b>	2.6	2.1	16.2	ND<0.017	ND<0.013	ND<0.0067	ND<0.013	ND<0.067	ND<0.067
VW-1A	11/15/2005	12	21:00	92	ND<0.027	2.1	2.0	17.9	ND<0.017	ND<0.013	ND<0.0067	ND<0.013	ND<0.067	ND<0.067
VW-2A	11/15/2005	0.5	9:30	110	ND<0.067	2.4	1.7	14.3	ND<0.067	ND<0.067	ND<0.067	ND<0.067	ND<0.067	ND<0.33
VW-2A	11/15/2005	6.0	15:00	110	ND<0.027	2.3	2.0	18.0	ND<0.017	ND<0.013	ND<0.0067	ND<0.013	ND<0.067	ND<0.067
VW-2A	11/15/2005	12.0	21:00	96	ND<0.027	2.1	1.8	18.2	ND<0.067	ND<0.067	ND<0.067	ND<0.013	ND<0.067	ND<0.067
VW-3A	11/15/2005	0.5	9:30	100	ND<0.067	2.6	1.9	14.2	ND<0.067	ND<0.067	ND<0.067	ND<0.067	ND<0.067	ND<0.33
VW-3A	11/15/2005	6.0	15:00	97	ND<0.027	2.1	1.9	16.3	ND<0.067	ND<0.067	ND<0.067	ND<0.067	ND<0.067	ND<0.33
VW-3A	11/15/2005	12.0	21:00	92	ND<0.027	1.6	1.8	17.0	ND<0.017	ND<0.013	ND<0.0067	ND<0.013	ND<0.067	ND<0.067
VW-1B	11/14/2005	0.5	9:00	190	0.16	5.1	2.0	16.4	0.31	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-1B	11/14/2005	11.5	20:00	150	0.16	7.3	3.0	21.1	0.48	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-1B	11/15/2005	24.0	8:30	160	0.12	6.6	3.2	22.3	0.52	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-2B	11/14/2005	0.5	9:00	220	0.26	7.3	2.4	19.3	0.74	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-2B	11/14/2005	11.5	20:00	**	**	**	**	**	**	**	**	**	**	**
VW-2B	11/15/2005	24.0	8:30	170	0.13	6.9	3.2	22.4	0.70	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-3B	11/14/2005	0.5	9:00	230	0.25	ND<0.25	2.9	19.3	0.57	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50
VW-3B	11/14/2005	11.5	20:00	**	**	**	**	**	**	**	**	**	**	**
VW-3B	11/15/2005	24.0	8:30	170	0.10	6.4	2.9	19.8	0.69	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.50

Notes: TPh-G = total petroleum hydrocarbons as gasoline

\* = length of extraction (from start) from well prior to sample collection

MTBE = methyl tertiary butyl ether

DPE = di-isopropyl ether

ETBE = ethyl tertiary-butyl ether

TAME = tertiary-ethyl methyl ether

TBA = tertiary butyl alcohol

ND = non detect above the Method Detection Limit (MDL)

ppmv = parts per million by volume

\*\* = sample damaged during transit

Table 2

**RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES-CONFIRMATION BORINGS**  
**Former 76 Station 0353**

Boring Number	Sample Date	Depth (ft)	TPE in/lb/in <sup>2</sup>	Gravimetric Water Content (%)	Indirect Shear Strength lb/in <sup>2</sup>	Direct Shear Strength lb/in <sup>2</sup>	Unconfined Compressive Strength lb/in <sup>2</sup>	CBR	Shore's Penetration Resistance N/mm <sup>2</sup>	ASTM D1883 Test Result	DIFP Test Result	FRIPE Test Result	FRIAM Test Result	IPBA Test Result	Ethanol Test Result
CB-1	12/5/2005	6.5	ND<0.12	ND<0.00058	ND<0.0010	ND<0.0094	ND<0.0039	ND<0.00066	ND<0.00041	ND<0.00013	ND<0.00020	ND<0.023	ND<0.27	ND<0.31	
	12/5/2005	15.5	<b>0.20</b>	ND<0.00068	ND<0.0012	ND<0.0011	ND<0.0046	ND<0.00077	ND<0.00047	ND<0.00015	ND<0.00024	ND<0.027	ND<0.31	ND<0.35	
	12/5/2005	21.0	ND<0.16	ND<0.00076	ND<0.0013	ND<0.0012	ND<0.0051	ND<0.00087	ND<0.00053	ND<0.00017	ND<0.00027	ND<0.031	ND<0.24	ND<0.27	
	12/5/2005	26.5	ND<0.13	ND<0.00059	ND<0.0010	ND<0.0095	ND<0.0040	ND<0.00067	ND<0.00041	ND<0.00013	ND<0.00021	ND<0.024	ND<0.27	ND<0.28	
	12/5/2005	31.0	ND<0.13	ND<0.00062	ND<0.0011	ND<0.0098	ND<0.0041	ND<0.00070	ND<0.00043	ND<0.00014	ND<0.00021	ND<0.025	ND<0.28	ND<0.29	
	12/5/2005	35.5	ND<0.13	ND<0.00063	ND<0.0011	ND<0.0010	ND<0.0042	ND<0.00071	ND<0.00044	ND<0.00014	ND<0.00022	ND<0.025	ND<0.26	ND<0.30	
	12/5/2005	41.0	ND<0.14	ND<0.00065	<b>0.0012<sup>j</sup></b>	ND<0.0010	ND<0.0044	ND<0.00074	ND<0.00045	ND<0.00015	ND<0.00023	ND<0.026	ND<0.28	ND<0.30	
	12/5/2005	46.5	<b>43</b>	<b>0.0098</b>	<b>2.0</b>	<b>1.3</b>	<b>9.3</b>	ND<0.00070	ND<0.00043	ND<0.00014	ND<0.00021	ND<0.025	ND<0.28	ND<0.30	
	12/5/2005	51.5	<b>0.37</b>	ND<0.00073	<b>0.0090</b>	<b>0.0039<sup>j</sup></b>	<b>0.054</b>	ND<0.0017 <sup>j</sup>	ND<0.00050	ND<0.00016	ND<0.00025	ND<0.029	ND<0.33	ND<0.37	
	12/5/2005	56.5	ND<0.13	ND<0.00060	ND<0.0010	ND<0.0096	ND<0.0040	<b>0.019</b>	ND<0.00042	ND<0.00014	ND<0.00021	ND<0.024	ND<0.27	ND<0.31	
	12/5/2005	61.0	ND<0.17	ND<0.00081	ND<0.0014	ND<0.0013	ND<0.0054	<b>0.00096<sup>j</sup></b>	ND<0.00056	ND<0.00018	ND<0.00028	ND<0.032	ND<0.32	ND<0.37	
	12/5/2005	65.5	<b>0.16<sup>j</sup></b>	ND<0.00069	ND<0.0012	ND<0.0011	ND<0.0046	<b>0.0016<sup>j</sup></b>	ND<0.00048	ND<0.00016	ND<0.00024	ND<0.028	ND<0.31	ND<0.33	
	12/5/2005	70.5	<b>14</b>	ND<0.00061	<b>0.021</b>	<b>0.051</b>	<b>0.38</b>	<b>0.0040</b>	ND<0.00042	ND<0.00014	ND<0.00021	ND<0.024	ND<0.28	ND<0.31	
	12/5/2005	76.0	ND<0.14	ND<0.00066	ND<0.0011	ND<0.0011	ND<0.0044	<b>0.0093</b>	ND<0.00046	ND<0.00015	ND<0.00023	ND<0.026	ND<0.30	ND<0.37	
	12/5/2005	81.5	0.25	ND<0.00062	ND<0.0011	ND<0.0010	ND<0.0042	0.11	ND<0.00043	ND<0.00014	ND<0.00022	ND<0.025	ND<0.28	ND<0.31	
	12/5/2005	86.5	<b>0.73</b>	<b>0.0014<sup>j</sup></b>	<b>0.0011<sup>j</sup></b>	ND<0.0098	ND<0.0041	<b>0.18</b>	ND<0.00043	ND<0.00014	ND<0.00021	ND<0.025	ND<0.28	ND<0.31	
	12/5/2005	91.5	13	ND<0.014	ND<0.025	ND<0.023	ND<0.096	0.26	ND<0.010	ND<0.0033	ND<0.0050	ND<0.058	<b>18<sup>j</sup></b>	ND<0.30	
	12/5/2005	96.5	0.27	ND<0.00060	ND<0.0010	ND<0.0096	ND<0.0040	0.18	ND<0.00042	ND<0.00014	ND<0.00021	ND<0.024	ND<0.27	ND<0.30	
	12/5/2005	100.5	<b>0.44</b>	ND<0.00062	ND<0.0011	<b>0.0040<sup>j</sup></b>	<b>0.034</b>	<b>0.011</b>	ND<0.00043	ND<0.00014	ND<0.00021	ND<0.025	ND<0.28	ND<0.31	
CB-2	12/5/2005	5.5	ND<0.13	ND<0.00059	ND<0.0010	ND<0.0095	ND<0.0040	ND<0.00067	ND<0.00041	ND<0.00013	ND<0.00021	ND<0.024	ND<0.27	ND<0.31	
	12/5/2005	10.5	ND<0.13	ND<0.00061	ND<0.0011	ND<0.0097	ND<0.0040	ND<0.00069	ND<0.00042	ND<0.00014	ND<0.00021	ND<0.024	ND<0.28	ND<0.31	
	12/5/2005	15.5	ND<0.13	ND<0.00063	ND<0.0011	ND<0.0010	ND<0.0042	ND<0.00071	ND<0.00044	ND<0.00014	ND<0.00022	ND<0.025	ND<0.29	ND<0.31	
	12/5/2005	20.5	ND<0.13	ND<0.00063	ND<0.0011	ND<0.0010	ND<0.0042	ND<0.00071	ND<0.00044	ND<0.00014	ND<0.00022	ND<0.025	ND<0.29	ND<0.31	
	12/5/2005	25.5	<b>0.53</b>	ND<0.00063	ND<0.0011	ND<0.0010	ND<0.0042	ND<0.00071	ND<0.00044	ND<0.00014	ND<0.00022	ND<0.025	ND<0.29	ND<0.31	
	12/5/2005	30.5	0.25	ND<0.00062	ND<0.0011	ND<0.0098	ND<0.0041	ND<0.00070	ND<0.00043	ND<0.00014	ND<0.00021	ND<0.025	ND<0.28	ND<0.31	
	12/5/2005	35.5	<b>0.32</b>	ND<0.00062	ND<0.0011	ND<0.0010	ND<0.0042	ND<0.00071	ND<0.00043	ND<0.00014	ND<0.00022	ND<0.025	ND<0.28	ND<0.31	
	12/5/2005	40.5	<b>0.19</b>	ND<0.00062	ND<0.0011	ND<0.0010	ND<0.0042	ND<0.00071	ND<0.00043	ND<0.00014	ND<0.00022	ND<0.025	ND<0.28	ND<0.31	
CB-2A	12/7/2005	46.0	ND<0.13	ND<0.00062	ND<0.0011	ND<0.0098	ND<0.0041	ND<0.00070	ND<0.00043	ND<0.00014	ND<0.00021	ND<0.025	ND<0.28	ND<0.31	
	12/7/2005	51.0	ND<0.15	ND<0.00071	ND<0.0012	ND<0.011	ND<0.0048	ND<0.00081	ND<0.00049	ND<0.00016	ND<0.00025	ND<0.028	ND<0.32	ND<0.32	
	12/7/2005	56.0	<b>7.0</b>	ND<0.015	ND<0.025	ND<0.023	ND<0.097	ND<0.016	ND<0.010	ND<0.0033	ND<0.0050	<b>0.61</b>	ND<0.28	ND<0.31	
	12/7/2005	60.5	ND<0.16	ND<0.0073	ND<0.0013	ND<0.0012	ND<0.0048	ND<0.00082	ND<0.00050	ND<0.00016	ND<0.00025	ND<0.029	ND<0.33	ND<0.33	

Table 2

**RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES-CONFIRMATION BORINGS**  
**Former 76 Station 0353**

Boring Number	Sample Date	Depth (ft.)	TPH (mg/l)	Benzene (mg/l)	1,4-diene (mg/l)	Vaseline (mg/l)	Xylenes (mg/l)	MTBE (mg/l)	1,3-butadiene (mg/l)	TPA Methyl Salicylate (mg/l)	1,4-diol (mg/l)	DIPPE (mg/l)	TPHP (mg/l)	TAME (mg/l)	TBA (mg/l)	Ethanol (mg/l)
CB-2A (cont'd)	12/7/2005	65.5	ND<0.14	ND<0.00067	ND<0.0012	ND<0.0011	ND<0.0011	ND<0.0044	0.0023 <sup>J</sup>	ND<0.00046	ND<0.00015	ND<0.00023	ND<0.027	ND<0.30		
	12/7/2005	71.5	ND<0.15	ND<0.0070	ND<0.0012	ND<0.0011	ND<0.0011	ND<0.0047	0.036	ND<0.0049	ND<0.0016	ND<0.0024	ND<0.028	ND<0.32		
	12/7/2005	76.5	0.42	ND<0.00064	ND<0.0011	ND<0.0010	ND<0.0011	ND<0.0043	0.38	ND<0.0045	ND<0.0015	ND<0.0022	ND<0.026	ND<0.29		
	12/7/2005	81.5	0.40	ND<0.00070	ND<0.0012	ND<0.0011	ND<0.0011	ND<0.0046	0.34	ND<0.0048	ND<0.0016	ND<0.0024	ND<0.028	ND<0.32		
	12/7/2005	86.5	0.72	ND<0.00057	ND<0.00099	ND<0.00091	ND<0.00091	ND<0.0038	0.64	ND<0.0040	ND<0.0013	ND<0.0020	ND<0.023	ND<0.26		
	12/7/2005	91.5	0.21	ND<0.00061	ND<0.0011	ND<0.00097	ND<0.00097	ND<0.0040	0.12	ND<0.0042	ND<0.0014	ND<0.0021	ND<0.024	ND<0.28		
	12/7/2005	96.0	0.31	ND<0.00056	ND<0.00098	ND<0.00090	ND<0.00090	ND<0.0038	0.28	ND<0.0039	ND<0.0013	ND<0.0020	ND<0.022	ND<0.26		
	12/7/2005	101.0	0.19	ND<0.00056	ND<0.00098	ND<0.00090	ND<0.00090	ND<0.0038	0.13	ND<0.0039	ND<0.0013	ND<0.0020	ND<0.022	ND<0.26		
CB-3	12/5/2005	6.0	ND<0.13	ND<0.00062	ND<0.0011	ND<0.0010	ND<0.0010	ND<0.0042	ND<0.0071	ND<0.00043	ND<0.0014	ND<0.0022	ND<0.025	ND<0.28		
	12/5/2005	11.0	ND<0.18	ND<0.0085	ND<0.0015	ND<0.0014	ND<0.0014	ND<0.0056	ND<0.0096	ND<0.0059	ND<0.0019	ND<0.0029	ND<0.034	ND<0.38		
	12/5/2005	16.0	ND<0.12	ND<0.00057	ND<0.00099	ND<0.00091	ND<0.00091	ND<0.0038	ND<0.0065	ND<0.0040	ND<0.0013	ND<0.0020	ND<0.023	ND<0.26		
	12/6/2005	20.5	ND<0.15	ND<0.00068	ND<0.0012	ND<0.0011	ND<0.0011	ND<0.0046	ND<0.0077	ND<0.0047	ND<0.0015	ND<0.0024	ND<0.027	ND<0.31		
	12/6/2005	25.5	ND<0.32	ND<0.0015	ND<0.0026	ND<0.0024	ND<0.0024	ND<0.0098	ND<0.017	ND<0.0010	ND<0.0033	ND<0.0051	ND<0.059	ND<0.67		
	12/6/2005	30.5	ND<0.17	ND<0.00080	ND<0.0014	ND<0.0013	ND<0.0013	ND<0.0054	ND<0.0091	ND<0.0056	ND<0.0018	ND<0.0028	ND<0.032	ND<0.36		
	12/6/2005	35.5	ND<0.13	ND<0.00062	ND<0.0011	ND<0.0010	ND<0.0010	ND<0.0042	ND<0.0071	ND<0.0043	ND<0.0014	ND<0.0022	ND<0.025	ND<0.28		
	12/6/2005	41.0	0.19	ND<0.00067	ND<0.0012	ND<0.0011	ND<0.0011	ND<0.0045	ND<0.0076	ND<0.0046	ND<0.0015	ND<0.0023	ND<0.027	ND<0.30		
	12/6/2005	46.0	ND<0.13	ND<0.00061	ND<0.0011	ND<0.00097	ND<0.00097	ND<0.0040	ND<0.0069	ND<0.0042	ND<0.0014	ND<0.0021	ND<0.024	ND<0.28		
	12/6/2005	51.0	0.24	ND<0.00064	ND<0.0011	ND<0.0010	ND<0.0010	0.0055 <sup>J</sup>	ND<0.0072	ND<0.0044	ND<0.0014	ND<0.0022	ND<0.026	ND<0.29		
	12/6/2005	56.5	ND<0.14	ND<0.00065	0.0033 <sup>J</sup>	ND<0.0010	0.0058 <sup>J</sup>	ND<0.0045	ND<0.0015	ND<0.0023	ND<0.0015	ND<0.026	ND<0.30			
	12/6/2005	60.5	ND<0.16	ND<0.00073	ND<0.0013	ND<0.0012	ND<0.0012	ND<0.0048	ND<0.0082	ND<0.0050	ND<0.0016	ND<0.0025	ND<0.029	ND<0.33		
	12/6/2005	65.5	ND<0.18	ND<0.00086	ND<0.0015	ND<0.0014	ND<0.0014	ND<0.0058	ND<0.0098	ND<0.0060	ND<0.0020	ND<0.0030	ND<0.034	ND<0.39		
	12/6/2005	71.0	0.21	ND<0.00071	ND<0.0012	ND<0.0011	ND<0.0011	ND<0.0048	0.0022 <sup>J</sup>	ND<0.0049	ND<0.0016	ND<0.0025	ND<0.028	ND<0.32		
	12/6/2005	76.5	0.18 <sup>J</sup>	ND<0.00071	ND<0.0012	ND<0.0011	ND<0.0011	ND<0.0048	0.024	ND<0.0049	ND<0.0016	ND<0.0025	ND<0.028	ND<0.32		
	12/6/2005	81.5	0.21	ND<0.00075	ND<0.0013	ND<0.0012	ND<0.0012	ND<0.0050	0.11	ND<0.0052	ND<0.0017	ND<0.0026	ND<0.030	ND<0.34		
	12/6/2005	85.5	0.21	ND<0.00074	ND<0.0013	ND<0.0012	ND<0.0012	ND<0.0050	0.048	ND<0.0051	ND<0.0017	ND<0.0026	ND<0.030	ND<0.34		
	12/6/2005	91.5	0.76	ND<0.00058	ND<0.0010	ND<0.00094	ND<0.00094	ND<0.0039	0.65	ND<0.0041	ND<0.0013	ND<0.0020	ND<0.023	ND<0.27		
	12/6/2005	96.5	0.90	ND<0.00061	ND<0.0011	ND<0.00097	ND<0.00097	ND<0.0040	0.70	ND<0.0042	ND<0.0014	ND<0.0021	ND<0.024	ND<0.28		
	12/6/2005	101.5	0.29	ND<0.00062	ND<0.0011	ND<0.0010	ND<0.0010	ND<0.0042	0.18	ND<0.0043	ND<0.0014	ND<0.0022	ND<0.025	ND<0.28		
CB-4	12/6/2005	5.5	0.15 <sup>J</sup>	ND<0.00064	ND<0.0011	ND<0.0010	ND<0.0042	ND<0.0072	ND<0.0044	ND<0.0014	ND<0.0022	ND<0.026	ND<0.29			
	12/6/2005	10.5	ND<0.14	ND<0.00064	ND<0.0011	ND<0.0010	ND<0.0042	ND<0.0072	ND<0.0044	ND<0.0014	ND<0.0022	ND<0.026	ND<0.29			
	12/6/2005	16.0	ND<0.15	ND<0.00070	ND<0.0012	ND<0.0011	ND<0.0046	ND<0.0079	ND<0.0048	ND<0.0016	ND<0.0024	ND<0.028	ND<0.32			
	12/6/2005	21.0	ND<0.16	ND<0.00074	ND<0.0013	ND<0.0012	ND<0.0049	ND<0.0083	ND<0.0051	ND<0.0017	ND<0.0025	ND<0.029	ND<0.33			

Table 2

**RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES-CONFIRMATION BORINGS**  
**Former 76 Station 0353**

Boring Number	Sample Date	Depth (ft)	TSPH (mg/l)	Benzene (mg/l)	Toluene (mg/l)	Phenol (mg/l)	Naphthalene (mg/l)	Total Arsenic (mg/l)	MTBE (mg/l)	DIBP (mg/l)	TAME (mg/l)	TBA (mg/l)	Ethanol (mg/l)
CB-4 (cont'd)	12/6/2005	25.5	0.17 <sup>J</sup>	ND<0.00070	ND<0.0012	ND<0.0011	ND<0.0046	ND<0.00048	ND<0.00024	ND<0.028	ND<0.32	ND<0.027	ND<0.31
	12/6/2005	31.5	0.21	ND<0.00068	ND<0.0012	ND<0.0011	ND<0.0045	ND<0.00076	ND<0.00047	ND<0.00023	ND<0.62	ND<0.27	ND<0.31
	12/6/2005	36.0	13	ND<0.016	ND<0.027	ND<0.025	0.28	ND<0.018	ND<0.0054	ND<0.0035	ND<0.13	ND<0.042	ND<7.5
	12/6/2005	41.5	3,300	ND<0.19	6.2	41	660	ND<0.21	ND<0.065	ND<0.054	ND<0.011	ND<0.036	ND<84
	12/6/2005	46.5	18	ND<0.016	3.9	0.93	5.6	ND<0.018	ND<0.011	ND<0.054	0.96 <sup>J</sup>	ND<0.11	ND<7.1
	12/6/2005	50.5	6,900	14	520	210	1,200	1.3	ND<0.11	ND<0.036	ND<0.056	ND<6.4	ND<73
	12/6/2005	56.0	20	0.018 <sup>J</sup>	0.35	0.30	2.1	0.13	ND<0.012	ND<0.0038	ND<0.058	ND<0.67	ND<7.6
	12/6/2005	61.0	0.29	0.00092 <sup>J</sup>	0.014	0.0029 <sup>J</sup>	0.028	0.0037 <sup>J</sup>	ND<0.0051	ND<0.0017	ND<0.0026	ND<0.030	ND<0.34
	12/6/2005	66.5	ND<0.15	ND<0.0071	0.0056	0.0020 <sup>J</sup>	0.014	0.0084	ND<0.0049	ND<0.0016	ND<0.0025	ND<0.028	ND<0.32
	12/6/2005	71.0	0.62	0.0039 <sup>J</sup>	0.073	0.019	0.12	0.0040 <sup>J</sup>	ND<0.0051	ND<0.0017	ND<0.0025	ND<0.029	ND<0.33
	12/6/2005	76.0	1.7	ND<0.0079	0.013	0.014	0.092	0.0028 <sup>J</sup>	ND<0.0055	ND<0.0018	ND<0.0027	ND<0.032	ND<0.36
	12/6/2005	81.0	0.26	ND<0.0091	0.0041 <sup>J</sup>	0.0018 <sup>J</sup>	0.011 <sup>J</sup>	0.0082	ND<0.0063	ND<0.0021	ND<0.0031	ND<0.036	ND<0.41
	12/6/2005	86.0	0.35	ND<0.0079	0.0052	0.0037 <sup>J</sup>	0.023	0.0050 <sup>J</sup>	ND<0.0055	ND<0.0018	ND<0.0027	ND<0.032	ND<0.36
	12/6/2005	91.5	0.49	0.00670 <sup>J</sup>	0.023	0.0091	0.054	0.28	ND<0.0041	ND<0.0013	ND<0.0021	ND<0.024	ND<0.27
	12/6/2005	95.5	0.61	0.0011 <sup>J</sup>	0.032	0.010	0.056	0.34	ND<0.0042	ND<0.0014	ND<0.0021	ND<0.024	ND<0.28
	12/6/2005	100.5	0.26	ND<0.0059	0.0069	0.0032 <sup>J</sup>	0.022	0.016	ND<0.0041	ND<0.0013	ND<0.0021	ND<0.024	ND<0.27
CB-5	12/7/2005	5.0	ND<0.15	ND<0.0068	ND<0.012	ND<0.0011	ND<0.0046	ND<0.00077	ND<0.00047	ND<0.00024	ND<0.027	ND<0.31	ND<0.31
	12/7/2005	10.5	20	ND<0.0068	ND<0.012	ND<0.011	ND<0.0045	ND<0.00076	ND<0.00047	ND<0.00023	ND<0.027	ND<0.31	ND<0.31
	12/7/2005	16.5	ND<0.12	ND<0.0058	ND<0.010	ND<0.0094	ND<0.0039	ND<0.00066	ND<0.00041	ND<0.00020	ND<0.023	ND<0.27	ND<0.27
	12/7/2005	20.5	ND<0.15	ND<0.0070	ND<0.012	ND<0.011	ND<0.0046	ND<0.00079	ND<0.00048	ND<0.00024	ND<0.028	ND<0.32	ND<0.32
	12/7/2005	26.0	ND<0.15	ND<0.0070	ND<0.012	ND<0.011	ND<0.0046	ND<0.00079	ND<0.00048	ND<0.00024	ND<0.028	ND<0.32	ND<0.32
	12/7/2005	30.5	ND<0.16	ND<0.0076	ND<0.013	ND<0.012	ND<0.0050	ND<0.00086	ND<0.00053	ND<0.00017	ND<0.00026	ND<0.030	ND<0.34
	12/7/2005	36.0	0.20	ND<0.0069	ND<0.012	ND<0.011	ND<0.0046	ND<0.00078	ND<0.00048	ND<0.00016	ND<0.00024	ND<0.028	ND<0.31
	12/7/2005	40.5	2.3	ND<0.0074	0.0013 <sup>J</sup>	ND<0.012	ND<0.0050	ND<0.00084	ND<0.00051	ND<0.00017	ND<0.00026	ND<0.030	ND<0.34
	12/7/2005	45.5	0.62	ND<0.0069	ND<0.012	ND<0.011	ND<0.0046	ND<0.00078	ND<0.00048	ND<0.00016	ND<0.00024	ND<0.028	ND<0.31
	12/7/2005	50.5	19	ND<0.0068	0.041	0.17	1.4	ND<0.00076	ND<0.00047	ND<0.00015	ND<0.00023	ND<0.027	ND<0.31
	12/7/2005	56.0	13	0.0013 <sup>J</sup>	0.091	0.10	0.79	0.0029 <sup>J</sup>	ND<0.00047	ND<0.00015	ND<0.00024	ND<0.027	ND<0.31
	12/7/2005	60.5	0.28	ND<0.0063	0.0031 <sup>J</sup>	0.0022 <sup>J</sup>	0.016	0.0011 <sup>J</sup>	ND<0.00044	ND<0.00014	ND<0.00022	ND<0.025	ND<0.29
	12/7/2005	66.5	0.30	ND<0.0058	0.024	0.010	0.074	0.0038 <sup>J</sup>	ND<0.00041	ND<0.00013	ND<0.00020	ND<0.023	ND<0.27
	12/7/2005	70.5	1.7	ND<0.0063	0.022	0.026	0.20	0.0013 <sup>J</sup>	ND<0.00044	ND<0.00014	ND<0.00022	ND<0.025	ND<0.29
	12/7/2005	75.5	0.21	ND<0.0071	0.0028 <sup>J</sup>	0.013	0.0035 <sup>J</sup>	ND<0.00049	ND<0.00016	ND<0.00025	ND<0.028	ND<0.32	ND<0.32
	12/7/2005	81.0	ND<0.17	ND<0.0078	ND<0.014	ND<0.012	ND<0.0052	0.0017 <sup>J</sup>	ND<0.0054	ND<0.00018	ND<0.00027	ND<0.031	ND<0.35
	12/7/2005	85.5	ND<0.15	ND<0.0068	0.0013 <sup>J</sup>	ND<0.011	0.0063 <sup>J</sup>	0.0049	ND<0.0047	ND<0.00015	ND<0.00024	ND<0.027	ND<0.31

Table 2

**RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES-CONFIRMATION BORINGS**  
**Former 76 Station 0353**

Boring Number	Sample Date	Depth (ftbg)	TPPH (mg/kg)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	MtBE (ppm)	Dipe (ppm)	Ethyl TAME (ppm)	TBA (mg/kg)	Ethanol (mg/kg)
CB-5 (cont'd)	12/7/2005	91.0	0.45	ND<0.00062	<b>0.0013<sup>j</sup></b>	<b>0.0011<sup>j</sup></b>	<b>0.0077<sup>j</sup></b>	<b>0.0095</b>	ND<0.00043	ND<0.00014	ND<0.00021
	12/7/2005	96.5	0.59	ND<0.00058	ND<0.0010	ND<0.00092	ND<0.0038	<b>0.42</b>	ND<0.00040	ND<0.00013	ND<0.00020
	12/7/2005	101.0	ND<0.14	ND<0.0064	ND<0.0011	ND<0.0010	ND<0.0042	<b>0.0081</b>	ND<0.00044	ND<0.00014	ND<0.00022
CB-6	12/8/2005	5.0	ND<0.13	<b>0.00062<sup>j</sup></b>	ND<0.0011	ND<0.00098	ND<0.0041	ND<0.00070	ND<0.00043	ND<0.00014	ND<0.00021
	12/8/2005	11.0	ND<0.17	ND<0.0079	ND<0.0014	ND<0.0013	ND<0.0052	ND<0.00089	ND<0.00055	ND<0.00018	ND<0.00027
	12/8/2005	15.5	ND<0.14	ND<0.0068	ND<0.0012	ND<0.0011	ND<0.0045	ND<0.00076	ND<0.00047	ND<0.00015	ND<0.00023
	12/8/2005	20.5	<b>0.22</b>	ND<0.0065	ND<0.0011	ND<0.0010	ND<0.0044	ND<0.00074	ND<0.00045	ND<0.00015	ND<0.00023
	12/8/2005	25.5	ND<0.14	ND<0.0064	ND<0.0011	ND<0.0010	ND<0.0042	ND<0.00072	ND<0.00044	ND<0.00014	ND<0.00022
	12/8/2005	30.5	ND<0.15	ND<0.0069	ND<0.0012	ND<0.0011	ND<0.0046	ND<0.00078	ND<0.00048	ND<0.00016	ND<0.00024
	12/8/2005	35.5	ND<0.14	ND<0.0068	ND<0.0012	ND<0.0011	ND<0.0045	ND<0.00076	ND<0.00047	ND<0.00015	ND<0.00023
	12/8/2005	40.5	ND<0.14	ND<0.0068	ND<0.0012	ND<0.0011	ND<0.0045	ND<0.00076	ND<0.00047	ND<0.00015	ND<0.00023
	12/8/2005	45.5	<b>1.1</b>	<b>0.0044</b>	<b>0.084</b>	<b>0.036</b>	<b>0.34</b>	<b>0.00074<sup>j</sup></b>	ND<0.00042	ND<0.00014	ND<0.00021
	12/8/2005	50.5	<b>0.27</b>	<b>0.00061<sup>j</sup></b>	<b>0.0083</b>	<b>0.0026<sup>j</sup></b>	<b>0.033</b>	<b>0.0012<sup>j</sup></b>	ND<0.00042	ND<0.00014	ND<0.00021
	12/8/2005	55.5	<b>9.6</b>	<b>0.0049</b>	<b>0.12</b>	<b>0.059</b>	<b>0.44</b>	<b>0.010</b>	ND<0.00041	ND<0.00013	ND<0.00021
	12/8/2005	60.5	ND<0.17	ND<0.0078	<b>0.0030<sup>j</sup></b>	<b>0.0016<sup>j</sup></b>	<b>0.010</b>	<b>0.0013<sup>j</sup></b>	ND<0.00054	ND<0.00018	ND<0.00027
	12/8/2005	65.5	<b>0.27</b>	ND<0.0062	<b>0.0064</b>	<b>0.0037<sup>j</sup></b>	<b>0.028</b>	<b>0.0017<sup>j</sup></b>	ND<0.00043	ND<0.00014	ND<0.00022
	12/8/2005	70.5	<b>0.22</b>	ND<0.0065	ND<0.0011	ND<0.0010	ND<0.0044	ND<0.00074	ND<0.00045	ND<0.00015	ND<0.00023
	12/8/2005	76.0	<b>0.15<sup>j</sup></b>	ND<0.0065	ND<0.0011	ND<0.0010	ND<0.0044	<b>0.028</b>	ND<0.00045	ND<0.00015	ND<0.00023
	12/8/2005	81.0	<b>0.33</b>	ND<0.0058	ND<0.0010	ND<0.0094	ND<0.0039	<b>0.24</b>	ND<0.00041	ND<0.00013	ND<0.00020
	12/8/2005	86.0	<b>0.42</b>	ND<0.0065	ND<0.0011	ND<0.0010	ND<0.0044	<b>0.32</b>	ND<0.00045	ND<0.00015	ND<0.00023
	12/8/2005	91.5	<b>0.45</b>	ND<0.0056	ND<0.00098	ND<0.00090	ND<0.0038	<b>0.35</b>	ND<0.00039	ND<0.00013	ND<0.00020
	12/8/2005	96.0	<b>0.45</b>	ND<0.0056	ND<0.00098	ND<0.00090	ND<0.0038	<b>0.41</b>	ND<0.00039	ND<0.00013	ND<0.00020
	12/8/2005	101.0	<b>0.18</b>	ND<0.0058	ND<0.0010	ND<0.0094	ND<0.0039	<b>0.087</b>	ND<0.00041	ND<0.00013	ND<0.00023

NOTES:  
TPPH = total purgeable petroleum hydrocarbons  
MTBE = methyl tertiary butyl ether  
Dipe = di-isopropyl ether  
TAME = tertiary-amyl methyl ether  
ETBE = ethyl tertiary-butyl ether

TBA = tertiary-butylic alcohol  
ND = not detected at the detection limit indicated  
fbg = feet below grade  
mg/kg = milligrams per kilogram  
<sup>j</sup> = estimated value; between the Practical Quantitation Limit and Method Detection Limit

**Formal Site Closure Request**

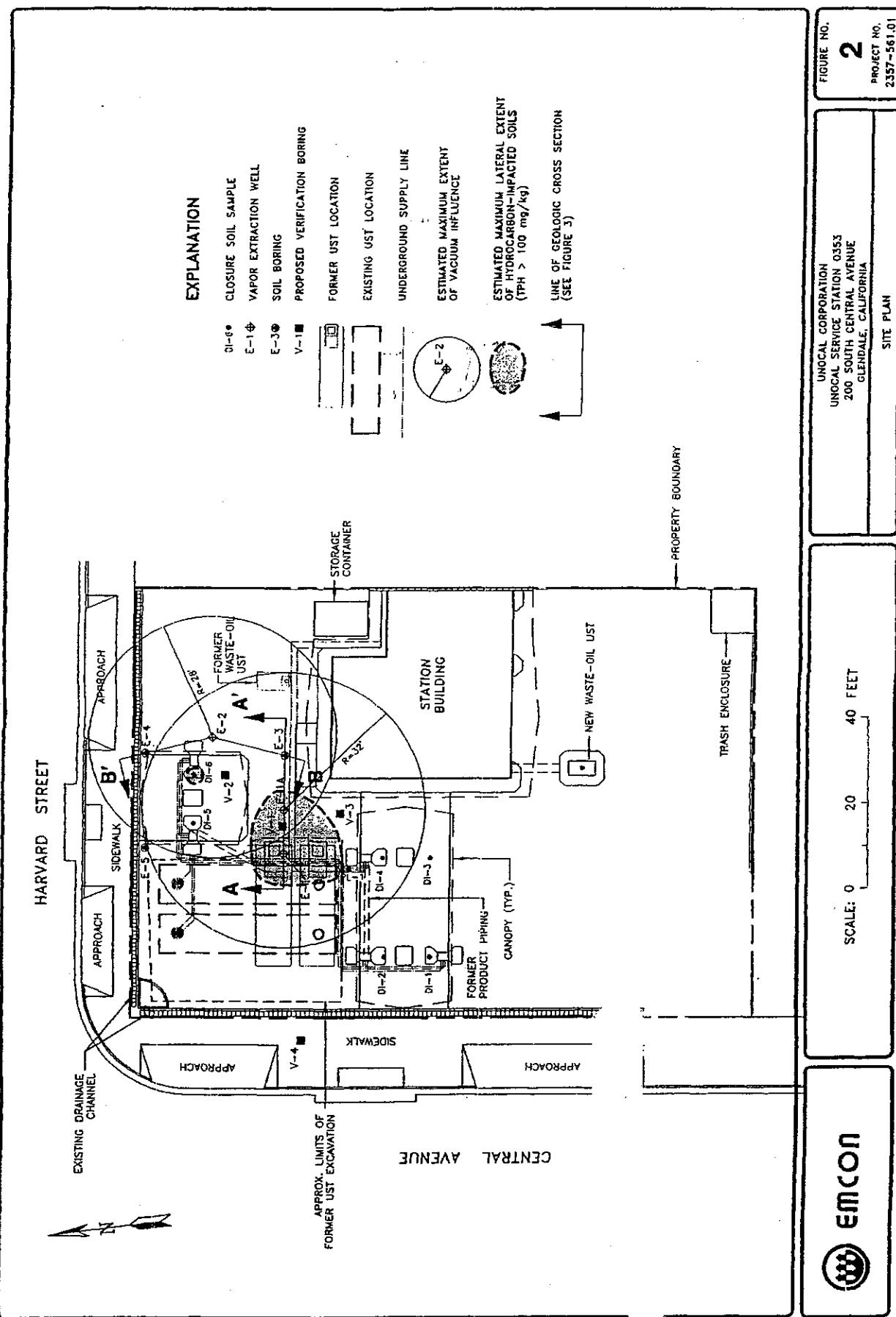
Former 76 Station 0353

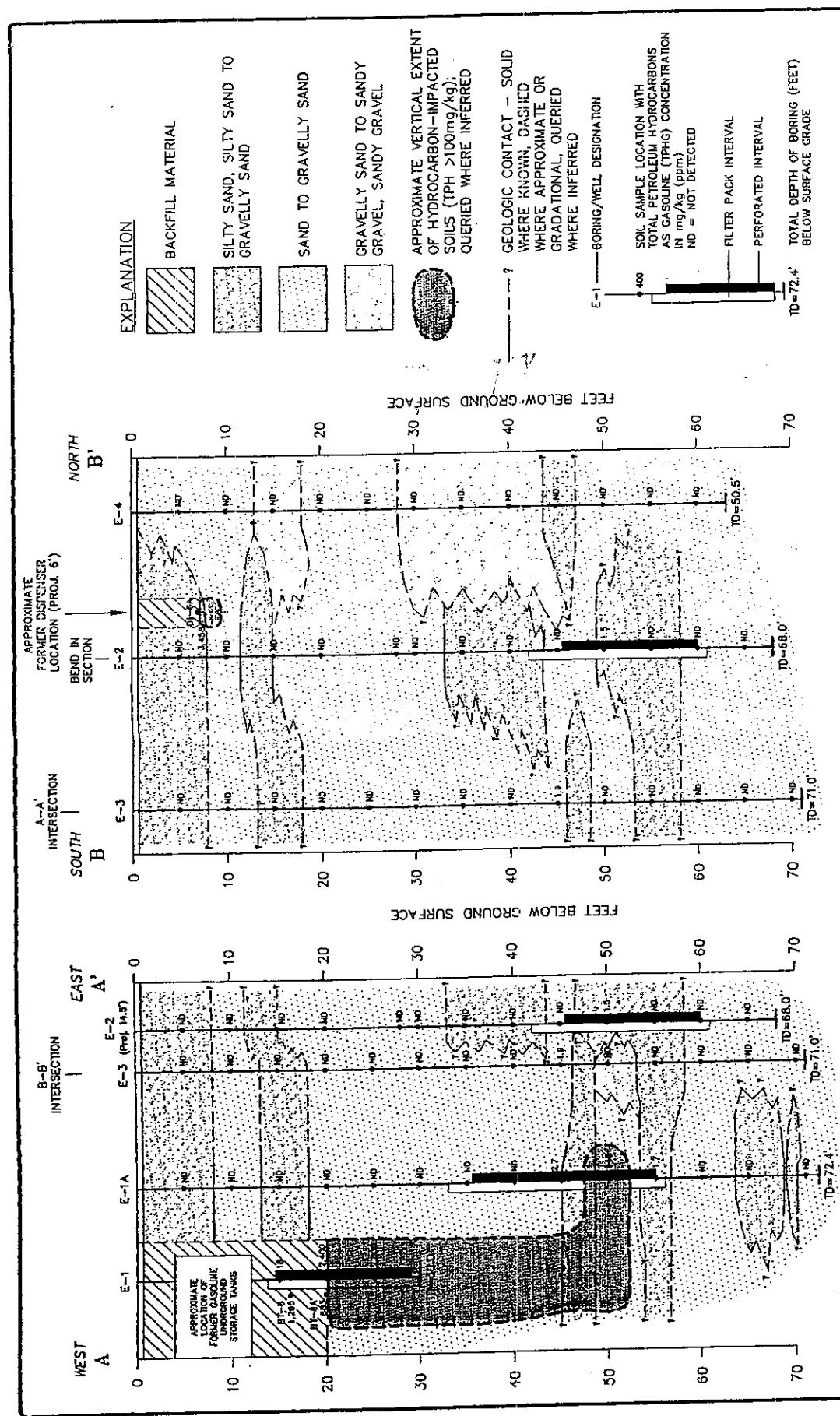
March 10, 2006

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**APPENDIX B**

**SELECTED FIGURES, TABLES, CHARTS, AND  
BORING LOGS FROM PREVIOUS INVESTIGATIONS**





**FIGURE NO. 3**  
**PROJECT NO. 2357-561.01**

**UNOCAL CORPORATION**  
**UNOCAL SERVICE STATION D153**  
**200 SOUTH CENTRAL AVENUE**  
**GLENDALE, CALIFORNIA**

**GEOLOGIC CROSS SECTION A-A' AND B-B'**

**SCALE: 0 10 20 FEET**



**Summary of VET Results**  
**Unocal Service Station**  
**200 S. Central Ave.**  
**Glendale, California**

Extraction Well	E-1	E-1A	E-2
Average Standard Vapor Extraction Rate (scfm):	24.8	19.8	39.5
Average Source Vacuum (inch wc gauge):	2.1	3.3	13.0
Estimated Average Total Petroleum Hydrocarbon Concentration in Extracted Vapor (ppmv):	2,700	19,000	6,100
Estimated Average Benzene Concentration in Extracted Vapor (ppmv):	<0.2	430	110
Extraction Time at Well (hr):	1.55	1.66	0.66
Minimum Theoretical Radius of Vacuum Influence for Well (feet):	NA	30	27
Maximum Theoretical Radius of Vacuum Influence for Well (feet):	NA	32	28
Oxygen Content (%):	9.0	2.0	6.0
Estimated Average Hydrocarbon Extraction Rate During Test (lb/hr):	1.0	5.7	3.60
Estimated Average Benzene Extraction Rate During Test (lb/hr):	0.00	0.11	0.05
Estimated Amount of Hydrocarbons Removed from Each Well During Test:			
TPHG (lb):	1.6	9.4	2.4
	Total TPHG Removed During Testing = 13.4		
Benzene (lb):	0.00	0.17	0.04
	Total Benzene Removed During Testing = 0.21		

# CALCULATION SHEET 1

PROJECT TITLE: Unocal 0353 - 200 S. Central Ave. Glendale, CA

PROJECT NO. OF30-009.03

DESCRIPTION: Soil Vapor Extraction Test Report Calculations

SHEET 1 OF 6

PREPARED BY: CLB DATE: 5/3/95 CHECKED BY: AWL

DATE: 8/14/95

## VAPOR SAMPLE ANALYTICAL RESULTS (ppmv)

	Extraction Well E1	Extraction Well E1A	Extraction Well E2
Total Hydrocarbons:	2,700	19,000	6,100
Benzene:	<0.2	430	110.0
Toluene:	17	2,500	400
Ethylbenzene:	26	370	65
Total Xylenes:	500	1,700	320
Oxygen (%)	9	2	6

## ASSUMPTIONS:

- 1) The molecular weight of the extracted hydrocarbon vapor is approximately 95 lb/lb mole.
- 2) The vapor sample analytical results represent the average hydrocarbon concentration in the extracted vapor.
- 3) The molecular weight of the extracted benzene vapor is approximately 78.11 lb/lb mole.

## NOTES:

- 1) The vapor extracted from Well E-1 was at an average vacuum of average temperature of ~ 75 F, and average flow rate of Vapor was extracted from the well for a total of ~ 1.55 hrs. 2.1 w.c.g., 24.8 scfm.
- 2) The vapor extracted from Well E-1A was at an average vacuum of average temperature of ~ 74 F, and average flow rate of Vapor was extracted from the well for a total of ~ 1.66 hrs. 3.3 w.c.g., 19.8 scfm.
- 3) The vapor extracted from Well E-2 was at an average vacuum of average temperature of ~ 77 F, and average flow rate of Vapor was extracted from the well for a total of ~ 0.66 hrs. 13.0 w.c.g., 39.5 scfm.

# CALCULATION SHEET 2

PROJECT TITLE: Unocal 0353 - 200 S. Central Ave. Glendale, CAPROJECT NO. OF30-009.03DESCRIPTION: Soil Vapor Extraction Test Report CalculationsSHEET 2 OF 6PREPARED BY: CLBDATE: 5/3/95

CHECKED BY:

AWLDATE: 8/14/95

## CALCULATIONS:

### **EXTRACTION WELL E-1**

$$\text{Average Normal} \\ \text{Vapor Extraction Rate} = 24.8 \text{ scfm}$$

$$\text{Average Total Hydrocarbon} \\ \text{Extraction Rate} = \frac{(2.70E-03 \text{ ft}^3)}{(\text{ft}^3)} \cdot \frac{(\text{lbmole})}{(379 \text{ ft}^3)} \cdot \frac{(95 \text{ lb})}{(\text{lb mole})} \cdot \frac{(24.8 \text{ ft}^3)}{(\text{min})} \cdot \frac{(60 \text{ min})}{(\text{hr})} \\ = 1.0 \text{ lb/hr}$$

$$\text{Amount of TPHG extracted} \\ \text{from well during test} = (1.0 \text{ lb/hr}) (1.55 \text{ hr}) = 1.6 \text{ lb}$$

$$\text{Average Benzene} \\ \text{Extraction Rate} = \frac{(2.00E-07 \text{ ft}^3)}{(\text{ft}^3)} \cdot \frac{(\text{lbmole})}{(379 \text{ ft}^3)} \cdot \frac{(78.11 \text{ lb})}{(\text{lb mole})} \cdot \frac{(24.8 \text{ ft}^3)}{(\text{min})} \cdot \frac{(60 \text{ min})}{(\text{hr})} \\ = 0.00 \text{ lb/hr}$$

$$\text{Amount of benzene extracted} \\ \text{from well during test} = (0.00 \text{ lb/hr}) (1.55 \text{ hr}) = 0.00 \text{ lb}$$

# CALCULATION SHEET 3

PROJECT TITLE: Unocal 0353 - 200 S. Central Ave. Glendale, CAPROJECT NO. OF30-009.03DESCRIPTION: Soil Vapor Extraction Test Report CalculationsSHEET 3 OF 6PREPARED BY: CLBDATE: 5/3/95CHECKED BY: AWLDATE: 8/14/95

## CALCULATIONS:

### EXTRACTION WELL E-1A

Average Normal  
Vapor Extraction Rate = 19.8 scfm

$$\text{Average Total Hydrocarbon Extraction Rate} = \frac{(1.90E-02 \text{ ft}^3)}{(\text{ft}^3)} \frac{(\text{lbmole})}{(379 \text{ ft}^3)} \frac{(95 \text{ lb})}{(\text{lb mole})} \frac{(\frac{19.8 \text{ ft}^3}{\text{min}})(60 \text{ min})}{(\text{hr})}$$
$$= 5.7 \text{ lb/hr}$$

Amount of TPHG extracted  
from well during test = ( 5.7 lb/hr ) ( 1.66 hr ) = 9.4 lb

$$\text{Average Benzene Extraction Rate} = \frac{(4.30E-04 \text{ ft}^3)}{(\text{ft}^3)} \frac{(\text{lbmole})}{(379 \text{ ft}^3)} \frac{(78.11 \text{ lb})}{(\text{lb mole})} \frac{(\frac{19.8 \text{ ft}^3}{\text{min}})(60 \text{ min})}{(\text{hr})}$$
$$= 0.11 \text{ lb/hr}$$

Amount of benzene extracted  
from well during test = ( 0.11 lb/hr ) ( 1.66 hr ) = 0.17 lb

# CALCULATION SHEET 4

PROJECT TITLE: Unocal 0353 - 200 S. Central Ave. Glendale, CAPROJECT NO. OF30-009.03DESCRIPTION: Soil Vapor Extraction Test Report CalculationsSHEET 4 OF 6PREPARED BY: CLBDATE: 5/3/95CHECKED BY: AWLDATE: 5/14/95

## CALCULATIONS:

### **EXTRACTION WELL E-2**

$$\text{Average Normal Vapor Extraction Rate} = 39.5 \text{ scfm}$$

$$\begin{aligned} \text{Average Total Hydrocarbon Extraction Rate} &= \frac{(6.10E-03 \text{ ft}^3)}{(\text{ft}^3)} \frac{(\text{lbmole})}{(379 \text{ ft}^3)} \frac{(95 \text{ lb})}{(\text{lb mole})} \frac{(39.5 \text{ ft}^3)}{(\text{min})} \frac{(60 \text{ min})}{(\text{hr})} \\ &= 3.6 \text{ lb/hr} \end{aligned}$$

$$\text{Amount of TPHG extracted from well during test} = (3.6 \text{ lb/hr}) (0.66 \text{ hr}) = 2.4 \text{ lb}$$

$$\begin{aligned} \text{Average Benzene Extraction Rate} &= \frac{(1.10E-04 \text{ ft}^3)}{(\text{ft}^3)} \frac{(\text{lbmole})}{(379 \text{ ft}^3)} \frac{(78.11 \text{ lb})}{(\text{lb mole})} \frac{(39.5 \text{ ft}^3)}{(\text{min})} \frac{(60 \text{ min})}{(\text{hr})} \\ &= 0.05 \text{ lb/hr} \end{aligned}$$

$$\text{Amount of benzene extracted from well during test} = (0.05 \text{ lb/hr}) (0.66 \text{ hr}) = 0.04 \text{ lb}$$

# CALCULATION SHEET 5

PROJECT TITLE: Unocal 0353 - 200 S. Central Ave. Glendale, CA

PROJECT NO. OF30-009.03

DESCRIPTION: Soil Vapor Extraction Test Report Calculations

SHEET 5 OF 6

PREPARED BY: CLB

DATE: 5/3/95

CHECKED BY: AVR

DATE: 8/14/95

## TOTAL AMOUNT OF HYDROCARBONS AND BENZENE EXTRACTED DURING TEST:

### Estimated Amount of

$$\text{Total Hydrocarbons Extracted} = 1.6 \text{ lbs} + 9.4 \text{ lbs} + 2.4 \text{ lbs} = 13.4 \text{ lbs}$$

### Estimated Amount of

$$\text{Benzene Extracted} = 0.17 \text{ lbs} + 0.04 \text{ lbs} = 0.21 \text{ lbs}$$

## EXTENT OF VACUUM INFLUENCE

An estimate for the extent of vacuum influence is obtained by fitting pressure distribution data from the vapor extraction test to the steady - state radial pressure distribution equation:

$$P(R) = P_w \left[ 1 + \left( 1 - \left( \frac{P_{atm}}{P_w} \right)^2 \right) \frac{\ln (r / R_w)}{\ln (R_w / R_l)} \right]^{1/2}$$

P(R) = the absolute pressure measured at a distance r from the extraction well

r = the distance between the extraction well and the observation well

P<sub>atm</sub> = the absolute ambient pressure (assumed to be ~14.7 psia)

P<sub>w</sub> = the absolute pressure applied at the vapor extraction well

R<sub>w</sub> = the radius of the extraction well, in feet

R<sub>l</sub> = the radius of vacuum influence, in feet

# CALCULATION SHEET 6

PROJECT TITLE: Unocal 0353 - 200 S. Central Ave. Glendale, CA PROJECT NO. OF30-009.03

DESCRIPTION: Soil Vapor Extraction Test Report Calculations SHEET 6 OF 6

PREPARED BY: CLB DATE: 5/3/95 CHECKED BY: HJ DATE: 8/14/95

## Extraction Well E-1A

Theoretical extent of vacuum influence at Well E-2

$$P(R) = 0.170 \text{ " w.c.g.} = 14.69 \text{ psia}$$

$$r = 22.5 \text{ feet}$$

$$Patm = 14.70 \text{ psia}$$

$$Pw = 3.3 \text{ " w.c.g.} = 14.58 \text{ psia}$$

$$Rw = 1 \text{ inch} = 0.083 \text{ feet}$$

$$14.69 \text{ psia} = 14.58 \text{ psia} \quad \left[ 1 + \left( 1 - \left( \frac{14.70}{14.58} \right)^2 \right) \ln \left( \frac{22.5 / 0.083}{\ln(0.083 / RI)} \right) \right]^{1/2}$$

Solving the above equation, RI = 30 feet

## Extraction Well E-2

Theoretical extent of vacuum influence at Well E-1A

$$P(R) = 0.410 \text{ " w.c.g.} = 14.69 \text{ psia}$$

$$r = 22.5 \text{ feet}$$

$$Patm = 14.70 \text{ psia}$$

$$Pw = 13 \text{ " w.c.g.} = 14.23 \text{ psia}$$

$$Rw = 1 \text{ inch} = 0.083 \text{ feet}$$

$$14.69 \text{ psia} = 14.23 \text{ psia} \quad \left[ 1 + \left( 1 - \left( \frac{14.70}{14.23} \right)^2 \right) \ln \left( \frac{22.5 / 0.083}{\ln(0.083 / RI)} \right) \right]^{1/2}$$

Solving the above equation, RI = 27 feet

VAPOR EXTRACTION TEST FIELD DATA  
 EMCON - BURBANK  
 VAPOR EXTRACTION WELL E-1

TEST DATE: 4/19/95  
 CLIENT: UNOCAL  
 STATION NUMBER: 353  
 SITE LOCATION: 200 S. Central Ave.  
 Glendale, California  
 EXTRACITON WELL: E-1  
 START TIME: 7:33

SYSTEM OPERATOR(S): Chris Bonds\David G.  
 ICE SERIAL NO.: V3 S/N 70

											AVG						
TIME MONITORED:	7:40	7:52	7:55	8:00	8:05	8:10	8:15	8:20	8:25	8:30	8:35	8:42	8:45	8:50	8:55	9:00	1:55 hrs
TIME INTERVAL BETWEEN MEASUREMENT:	7	12	3	5	5	5	5	5	5	5	5	7	3	5	5	5	
APPLIED VACUUM (INCH W.C.):	2.7	0.7	0.7	0.8	0.8	1.6	1.5	1.6	1.6	1.6	3.6	3.8	3.8	4.1	4.2	2.1	
VAPOR TEMP. (F):	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	
VAPOR EXTRACTION RATE (SCFM):	30.9	9.5	10.7	11.0	11.0	10.8	21.2	20.5	21.1	21.1	42.0	42.0	42.3	43.0	44.0	24.8	
MONITORING WELL NO.:	E-1A	0.10	0.05	0.05	0.04	0.05	0.05	0.06	0.07	0.07	0.07	0.08	0.11	0.13	0.14	0.13	0.15
	E-2	0.05	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.08	0.08	0.08	0.12	0.12	0.14	0.16	0.17
PID (ppmv)		2842											>2500				>2500

VAPOR EXTRACTION TEST FIELD DATA  
 EMCON - BURBANK  
 VAPOR EXTRACTION WELL E-1A

TEST DATE: 4/19/95  
 CLIENT: UNOCAL  
 STATION NO: 353  
 SITE LOCATION: 200 S. Central Ave.  
 Glendale, California  
 EXTRACTION WELL: E-1A  
 START TIME: 9:20

SYSTEM OPERATOR(S): Chris Bonds\David G.  
 ICE SERIAL NO. V3 S/N 70

											Avg										
TIME MONITORED:	9:25	9:30	9:35	9:40	9:45	9:50	9:55	10:00	10:05	10:10	10:15	10:20	10:25	10:30	10:35	10:40	10:45	10:50	10:55	11:00	1.66 hrs
TIME INTERVAL BETWEEN MEASUREMENT:	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
APPLIED																					
VAC. (INCH W.C.):	4.75	4.8	1.5	1.5	1.5	1.5	1.5	1.5	3.3	3.25	3.25	3.3	3.3	4.9	5	5	5	5.1	5.1	5.1	3.3
VAPOR TEMP. (F):	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
EXTRACTION RATE (SCFM):	27.5	28.0	9.8	9.5	9.7	9.6	9.6	9.8	9.8	20.6	20.3	20.1	20.2	20.1	29.0	30.7	30.0	29.5	29.6	30.3	19.8
MONITORING WELL NO.:																					
E-1	0.06	0.06	0.02	0.02	0.00	0.00	0.01	0.02	0.04	0.03	0.04	0.04	0.04	0.05	0.07	0.06	0.07	0.07	0.07	0.07	0.05
E-2																					
PID (ppmv)																					>2500
																					>2500

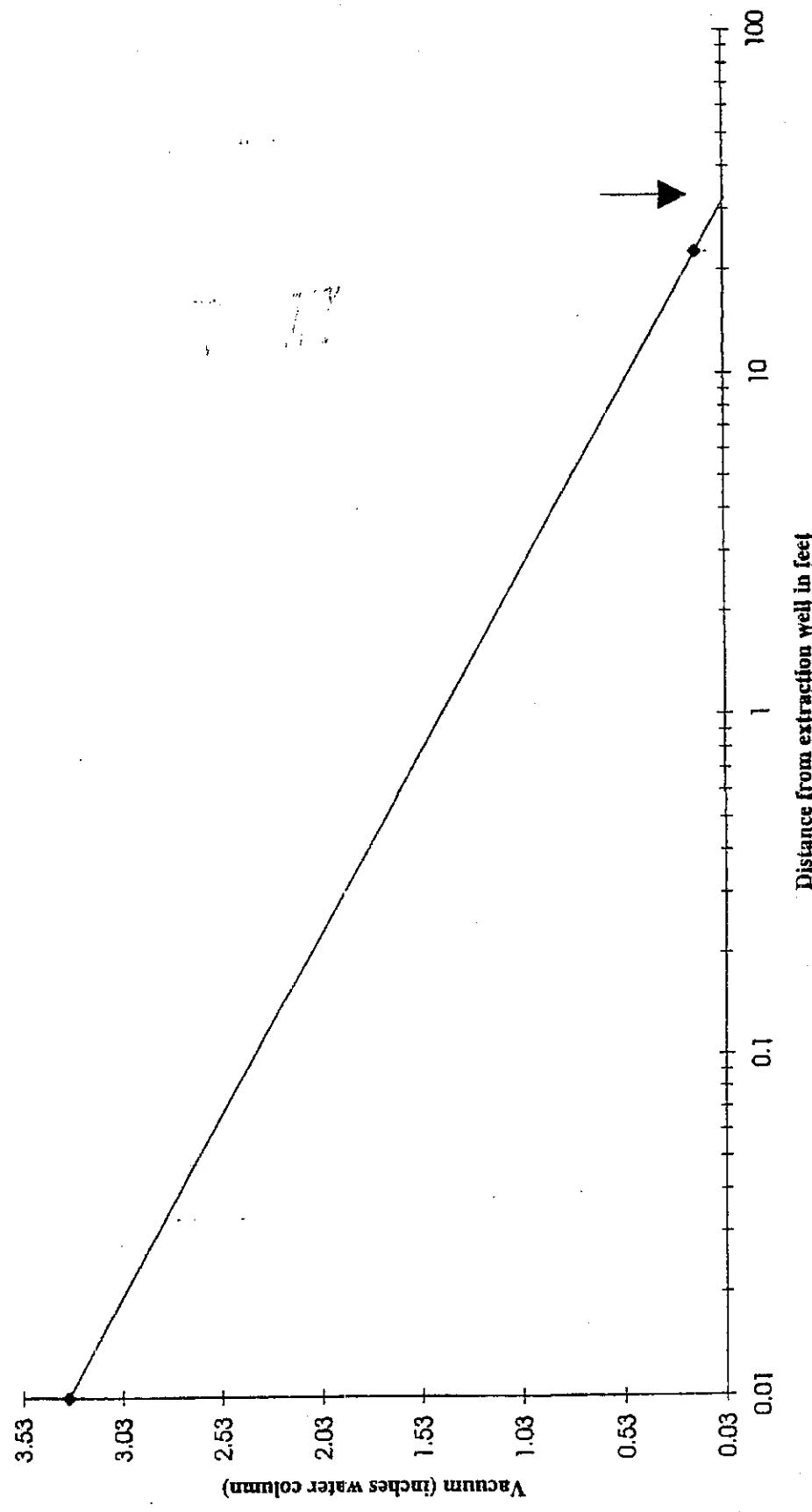
VAPOR EXTRACTION TEST FIELD DATA  
 EMCON - BURBANK  
 VAPOR EXTRACTION WELL E-2

TEST DATE:	4/19/95
CLIENT:	UNOCAL
STATION NUMBER:	353
SITE LOCATION	200 S. Central Ave. Glendale, California
EXTRACTION WELL	E-2
START TIME:	11:15

SYSTEM OPERATOR(S): Chris Bonds\\David G.  
 ICE SERIAL NO. V3 SN 70

TIME MONITORED:	11:22	11:25	11:30	11:35	11:40	11:45	11:50	11:55	Avg	0.66 hrs
TIME INTERVAL BETWEEN MEASUREMENT:	3	5	5	5	5	5	5	5		
APPLIED VACUUM (INCH W.C.):	13	13	13	13	13	13	13	13	13	13.0
VAPOR TEMP. (F):	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	77
VAPOR EXTRACTION RATE (SCFM):	41.4	39.0	38.9	40.0	38.3	39.5	40.7	40.0	39.5	
MONITORING WELL NO.:	E-1	0.01	0.03	0.03	0.01	0.02	0.02	0.03	0.02	
E-1A	0.36	0.38	0.38	0.39	0.39	0.41	0.41	0.41	0.41	
PID (ppmv)		>2500			>2500			>2500		>2500

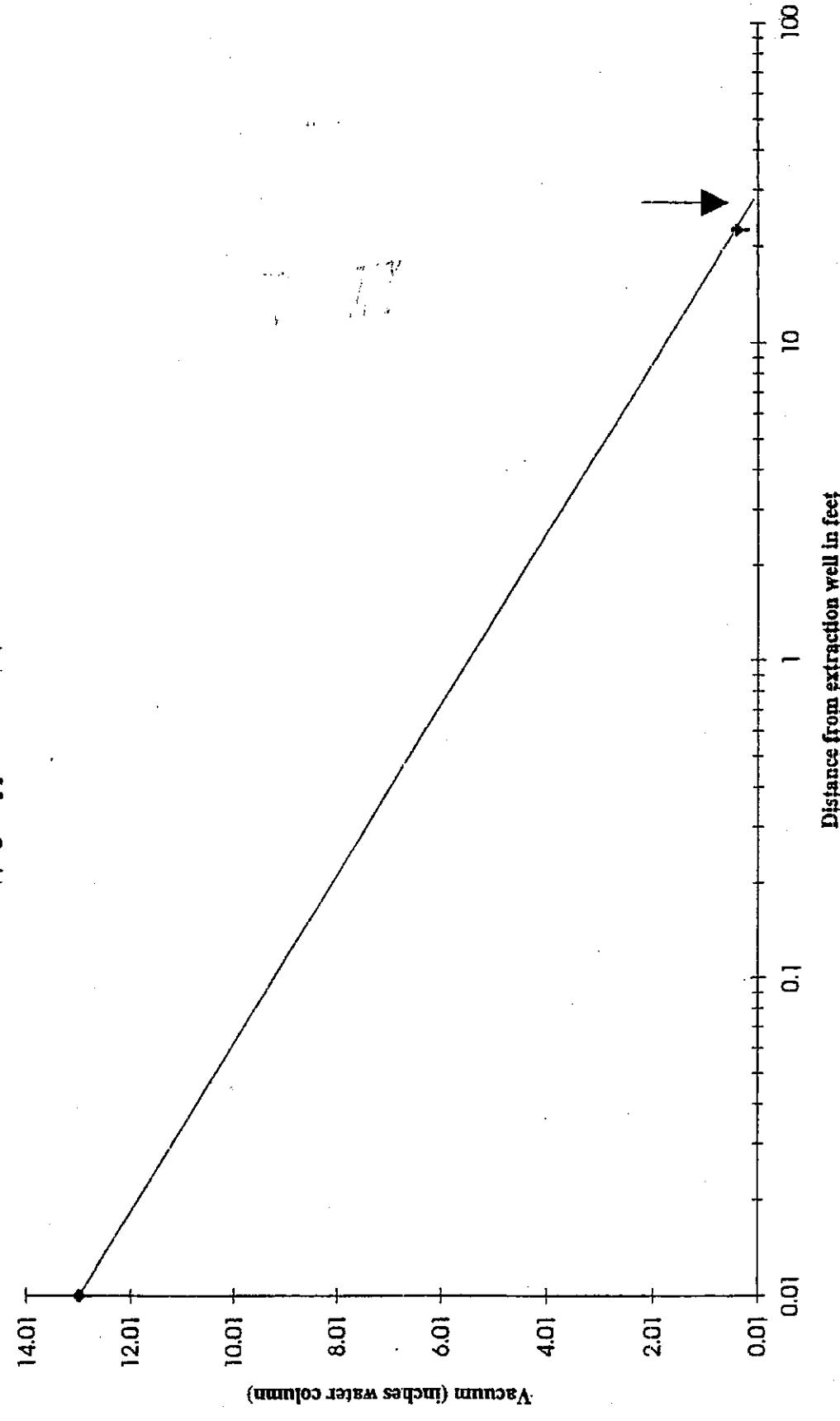
Vapor Extraction Test - 2/3 maximum vacuum  
Well E-1A  
Average Applied Vacuum = 3.3 " wc



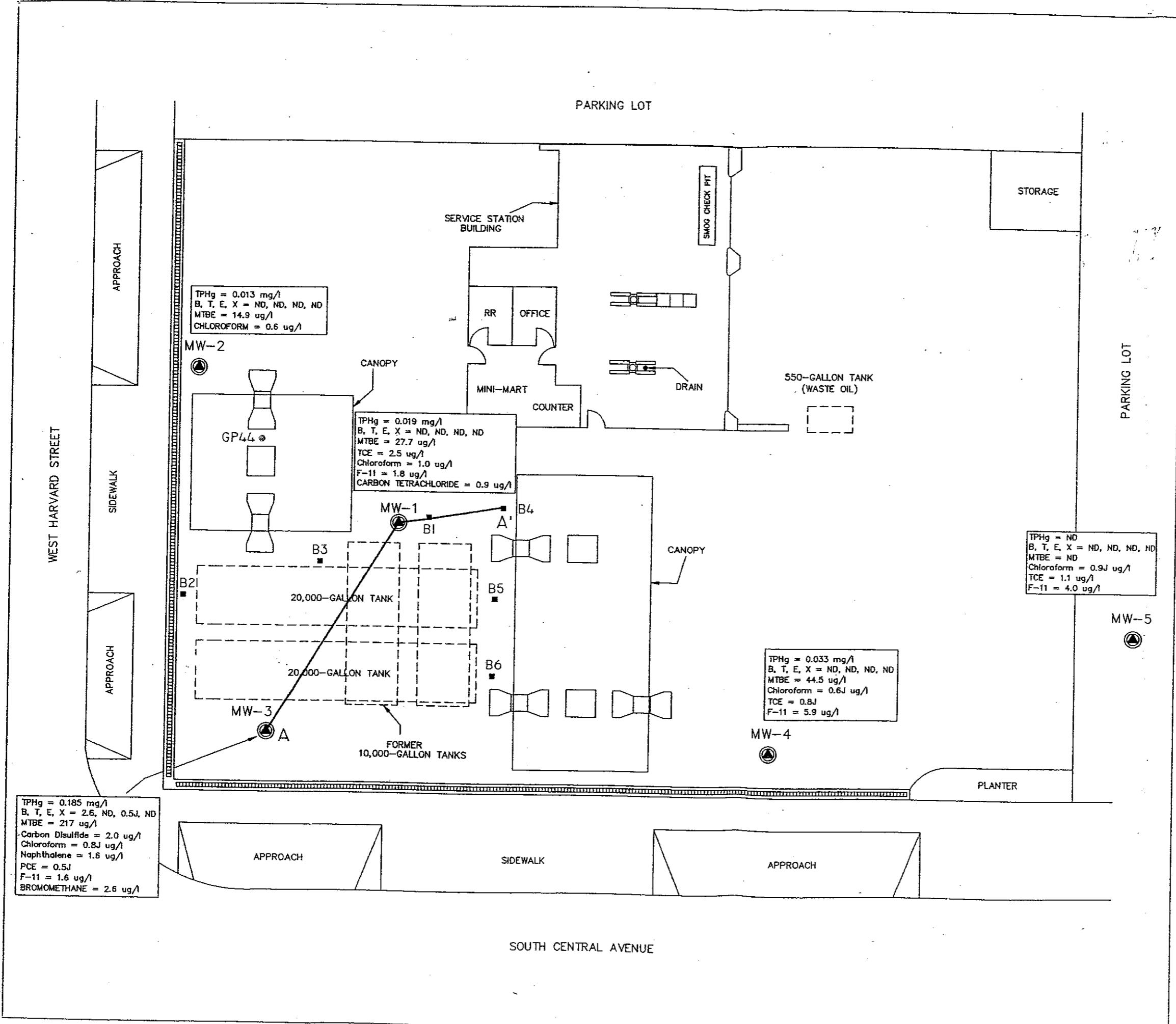
Vapor Extraction Test - 2/3 maximum vacuum

Well E-2

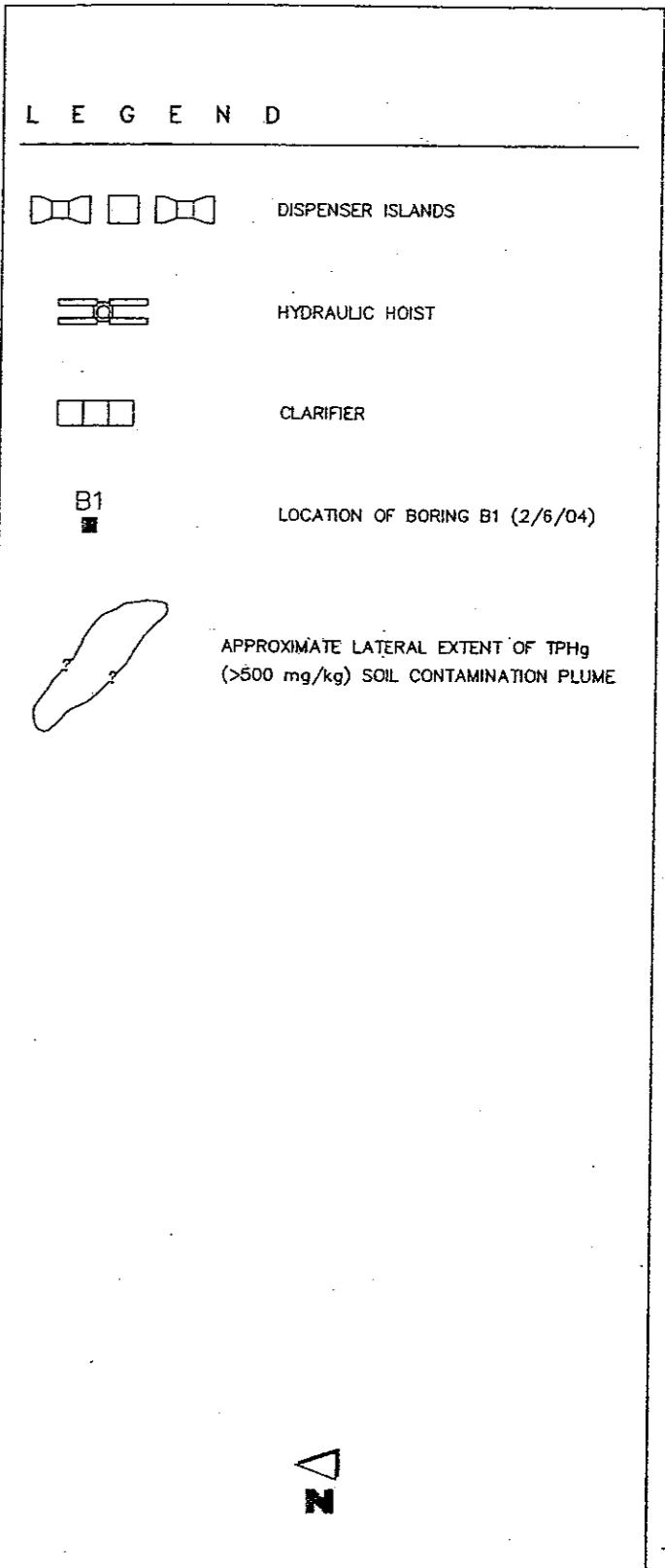
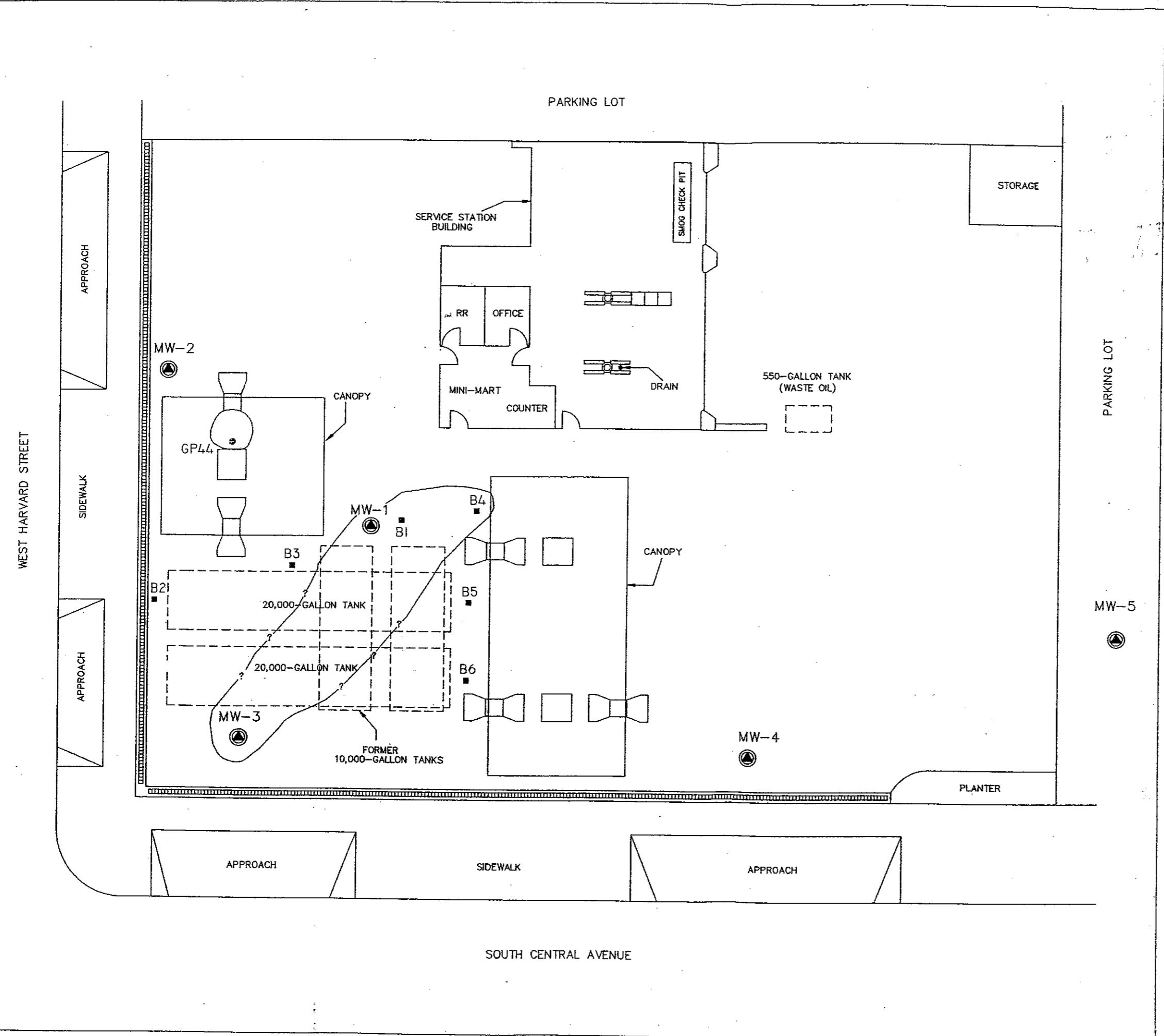
Average Applied Vacuum = 13 " wc



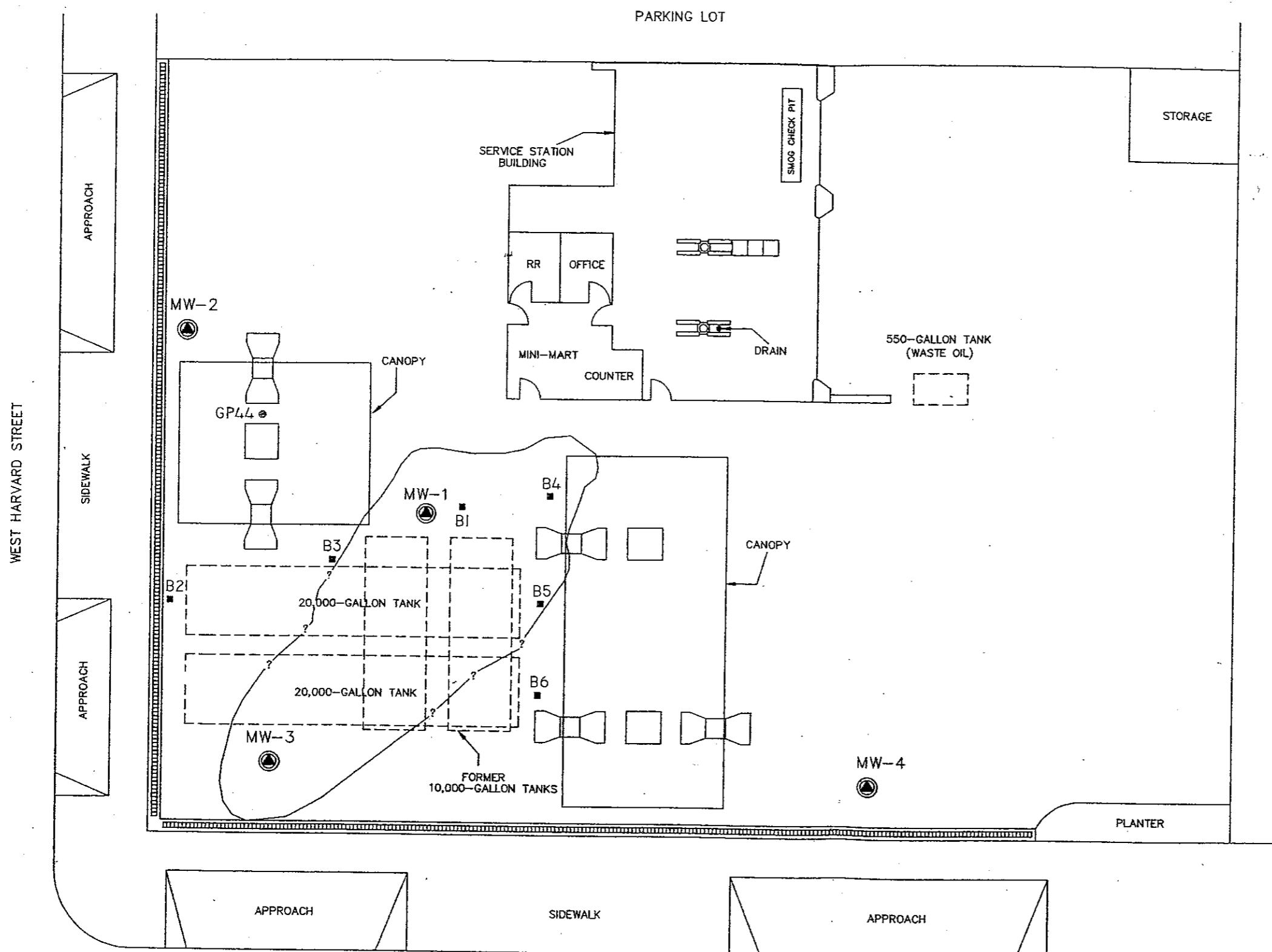




TASK	GROUNDWATER INVESTIGATION		
TITLE	SITE PLAN		
NAME	UNOCAL SERVICE STATION O353		
SITE ADDRESS	200 SOUTH CENTRAL AVENUE, GLENDALE, CA		
SCALE	1" = 15'	DRAWN	SJF
DATE	09-29-04	APPROVED	VH
		REVISED	
SHEET	1 OF 1	DRAWING NUMBER	10902203B
<b>E.P. ASSOCIATES</b> 111 NORTH BRAND BOULEVARD, SUITE 405 GLENDALE, CALIFORNIA 91202-3023 TEL. (818) 246-4499 FAX. (818) 246-4362		FIGURE	2



TASK	GROUNDWATER INVESTIGATION		
TITLE	APPROXIMATE LATERAL EXTENT OF TPH <sub>g</sub> (>500 mg/kg) SOIL CONTAMINATION PLUME		
NAME	UNOCAL SERVICE STATION 0353		
SITE ADDRESS	200 SOUTH CENTRAL AVENUE, GLENDALE, CA		
SCALE	1" = 15'	DRAWN BY	APPROVED BY
DATE	09-29-04	SHEET	1 OF 1 DRAWING NUMBER
			10902203D
		FIGURE	
		4	

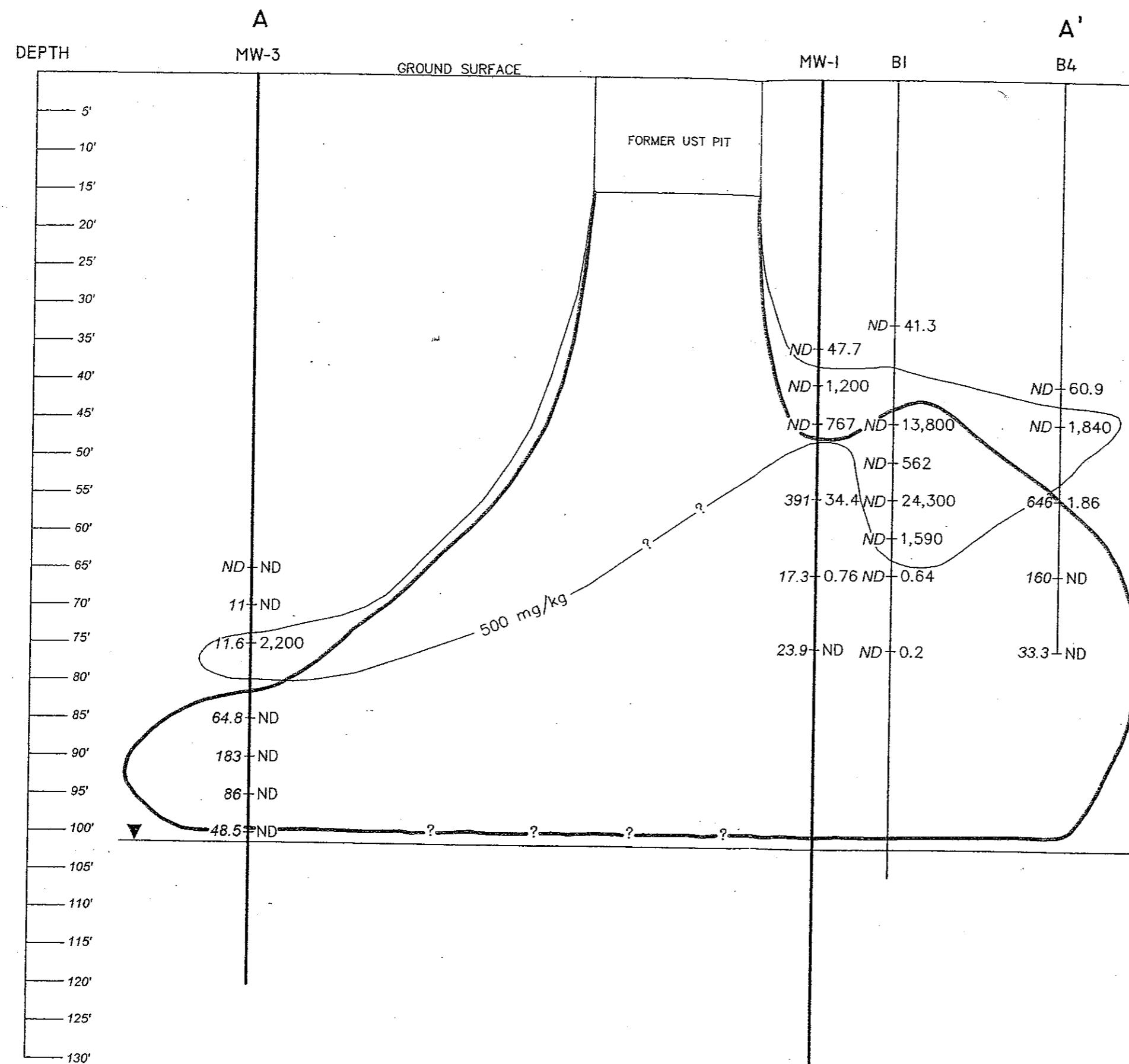


### LEGEND

- DISPENSER ISLANDS
- HYDRAULIC HOIST
- CLARIFIER
- B1  
■ LOCATION OF BORING B1 (2/6/04)
- MW-1 (416.12')  
○ LOCATION OF MONITORING WELL MW-1 (GROUNDWATER ELEVATION ABOVE MSL)

APPROXIMATE LATERAL EXTENT OF MTBE SOIL CONTAMINATION PLUME

TASK	GROUNDWATER INVESTIGATION		
TITLE	APPROXIMATE LATERAL EXTENT OF MTBE SOIL CONTAMINATION PLUME		
NAME	UNOCAL SERVICE STATION 0353		
SITE ADDRESS	200 SOUTH CENTRAL AVENUE, GLENDALE, CA		
SCALE	1" = 15'	DRAWN	SJF APPROVED VH REVISED
DATE	09-29-04	sheet	1 OF 1 DRAWING NUMBER 10902203E
 <b>EP ASSOCIATES</b> 111 NORTH BRAND BOULEVARD, SUITE 405 GLENDALE, CALIFORNIA 91202-3023 TEL (818) 246-4499 FAX (818) 246-4362		FIGURE 5	



L E G M N D

B1 LOCATION OF GEOPROBE BORING B1  
ND + 41.3 MTBE CONCENTRATION (NON-DETECTED)  
TPHg CONCENTRATION (41.3 mg/kg)

MW-1 LOCATION OF MONITORING WELL MW-1  
391 34.4 MTBE CONCENTRATION (391 ug/kg)  
TPHg CONCENTRATION (34.4 mg/kg)

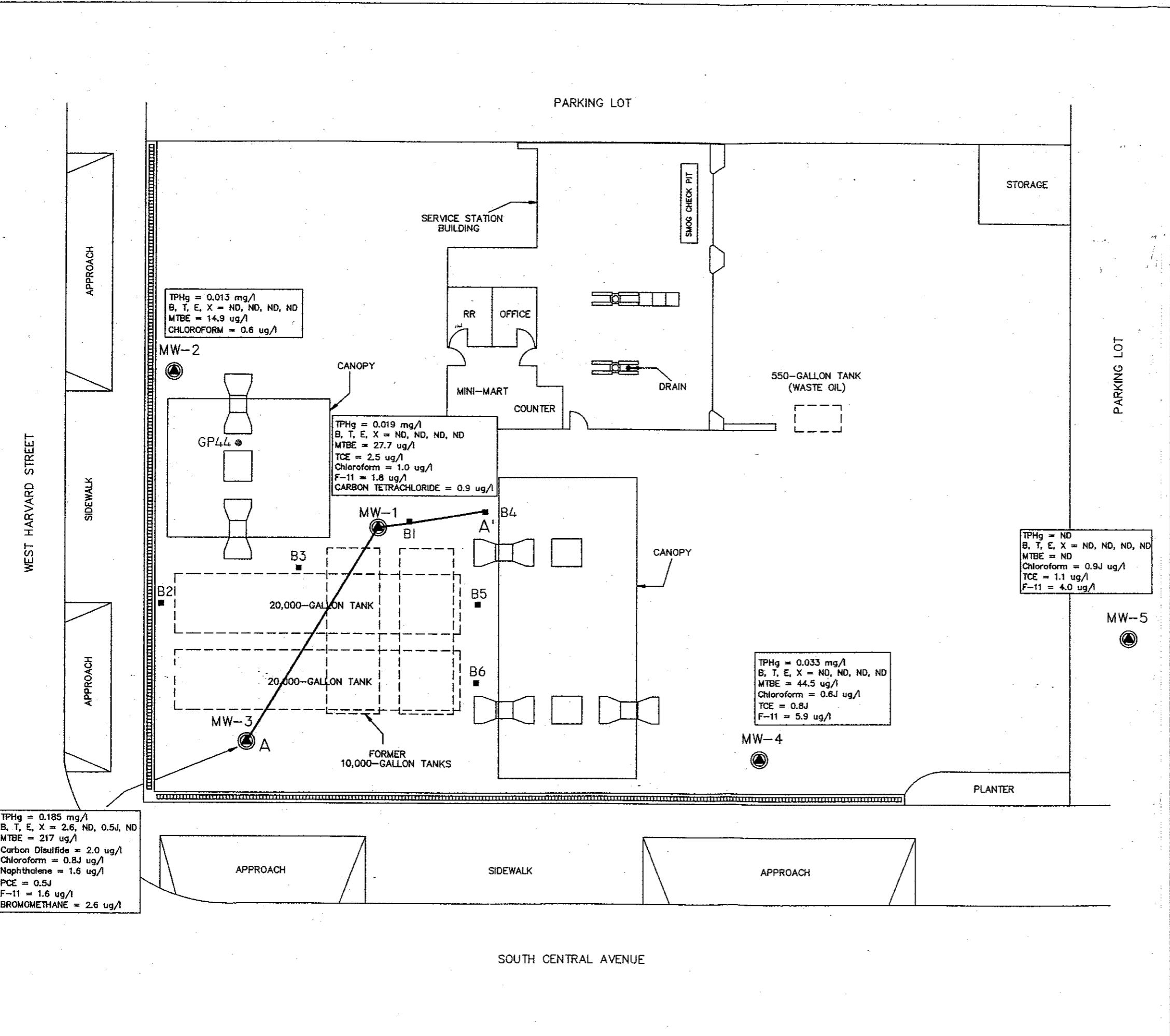


A-A' CROSS SECTION A-A'

NOTES:  
MTBE IN BORING B1 WAS LIKELY DILUTED OUT OF  
LABORATORY RESULTS OF THE SOIL SAMPLES

HORIZONTAL SCALE: 1" = 10'  
VERTICAL SCALE: 1" = 20'

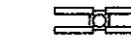
TASK	GROUNDWATER INVESTIGATION		
TITLE	APPROXIMATE VERTICAL EXTENT OF TPHg AND MTBE SOIL CONTAMINATION		
NAME	UNOCAL SERVICE STATION 0353		
SITE ADDRESS	200 SOUTH CENTRAL AVENUE, GLENDALE, CA		
SCALE	1" = 15'	DRAWN BY SJF	APPROVED VH REvised
DATE	09-29-04	SHEET 1 OF 1	DRAWING NUMBER 10902203F
 <b>E.P. ASSOCIATES</b> 111 NORTH BRAND BOULEVARD, SUITE 405 GLENDALE, CALIFORNIA 91202-3023 TEL: (818) 266-4491 FAX: (818) 266-4362		FIGURE	



**L E G E N D**



## DISPENSER ISLANDS



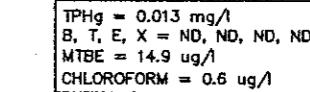
HYDRAULIC HOIST



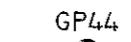
CLARIFIER



**LOCATION OF BOARING B1 (2/6/01)**



**LOCATION OF MONITORING WELL MW-2  
AND GROUNDWATER SAMPLE RESULTS**

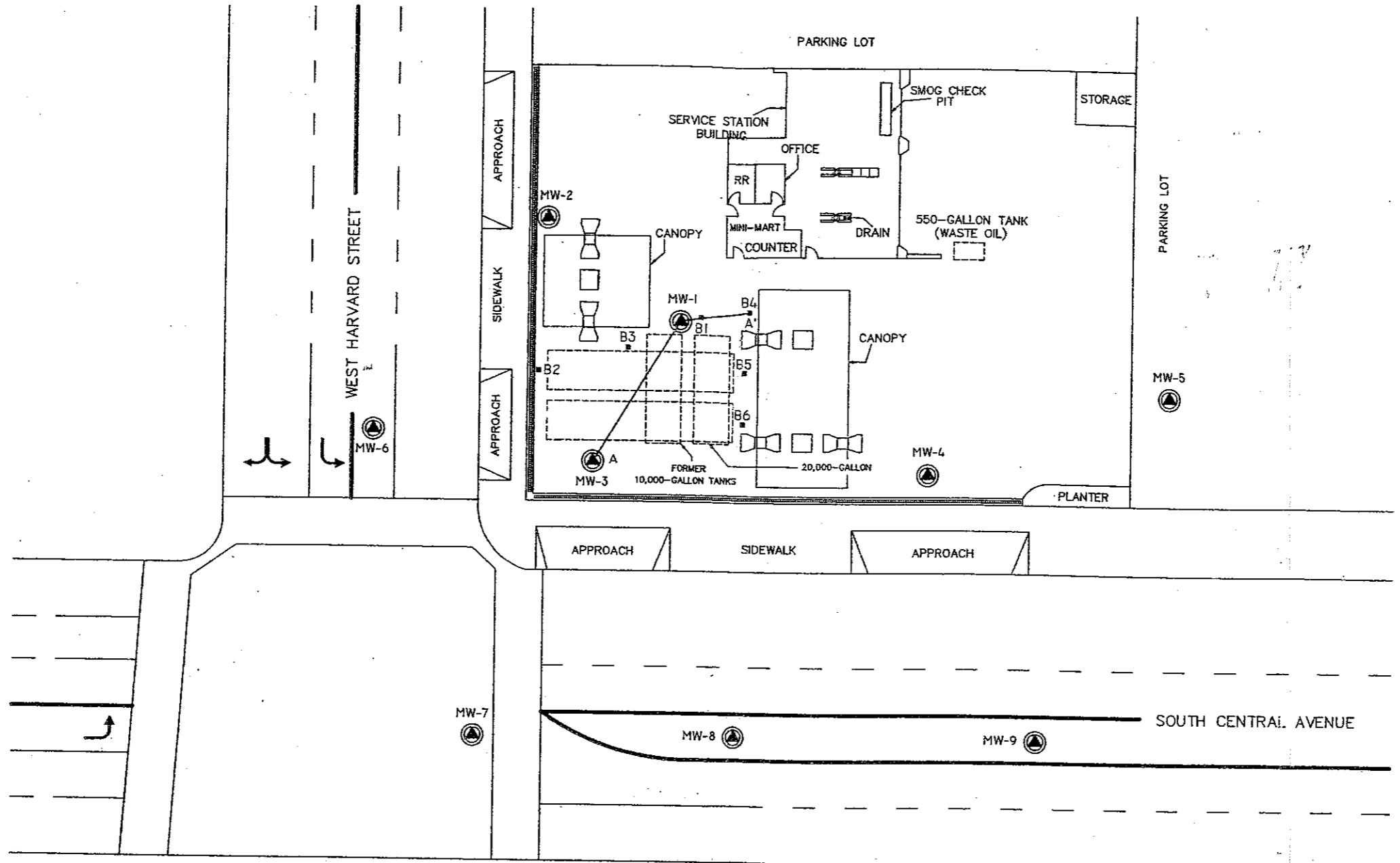


**LOCATION OF GEOPROBE BORING GP44**

A - A

CROSS SECTION LINE FOR FIGURE 6

TASK	GROUNDWATER INVESTIGATION			
TITLE	SITE PLAN			
NAME	UNOCAL SERVICE STATION 0353			
SITE ADDRESS	200 SOUTH CENTRAL AVENUE, GLENDALE, CA			
SCALE	1" = 15'	DRAWN	APPROVED	REVISED
DATE	09-29-04	SHEET	1 OF 1	DRAWING NUMBER 10902203B
 <b>EP ASSOCIATES</b> 111 NORTH BRAND BOULEVARD, SUITE 405 GLENDALE, CALIFORNIA 91202-3023 TEL. (818) 246-4499 FAX (818) 246-4362				FIGURE 2



### LEGEND

DISPENSER ISLANDS

B1  
■ LOCATION OF BORING B1 (FEBRUARY 2004)

HYDRAULIC HOIST

MW-1  
● LOCATION OF EXISTING MONITORING WELL

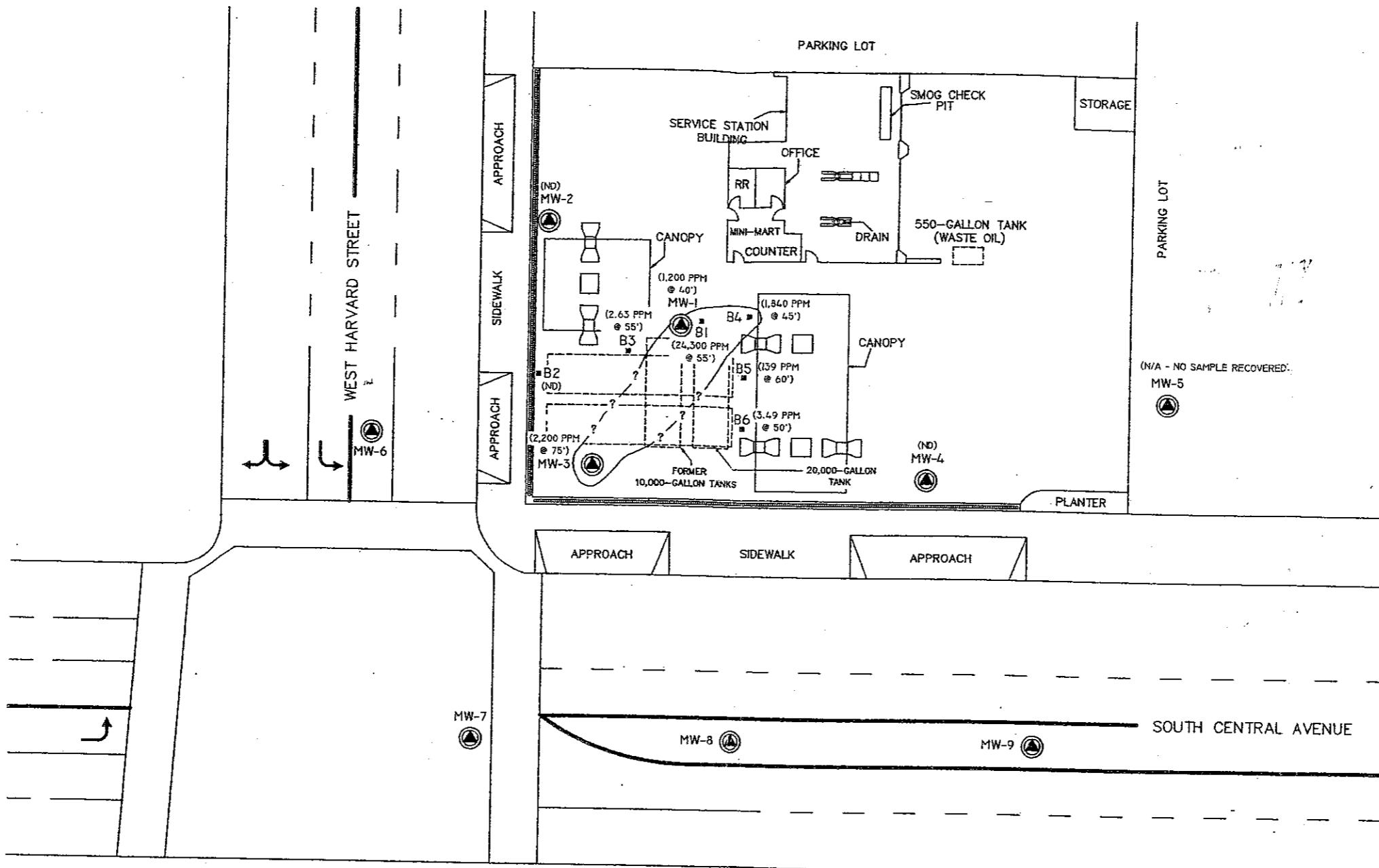
CLARIFIER

A - A'  
CROSS SECTION LINE FOR FIGURE 6

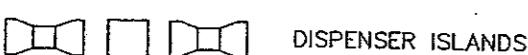


SCALE 1" = 30'

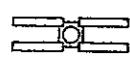
TASK		ADDITIONAL GROUNDWATER ASSESSMENT		
TITLE SITE PLAN				
NAME UNOCAL SERVICE STATION O353				
SITE ADDRESS	200 SOUTH CENTRAL AVENUE, GLENDALE, CA			
SCALE	1" = 30'	DRAWN	ED	APPROVED
		VH		REVISED 01/17/05
DATE	09/29/04	SHEET	1 OF 1	DRAWING NUMBER 10902204
<b>EP ASSOCIATES</b> 111 NORTH BRAND BOULEVARD, SUITE 405 GLENDALE, CALIFORNIA 91202-3023 TEL. (818) 246-4499 FAX. (818) 246-4362				FIGURE 2



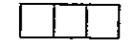
### LEGEND



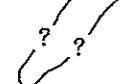
DISPENSER ISLANDS



HYDRAULIC HOIST



CLARIFIER



APPROXIMATE LATERAL EXTENT OF TPH<sub>g</sub>  
(>500 mg/kg) SOIL CONTAMINATION PLUME

B1

(24,300 PPM @ 55')

LOCATION OF BORING B1 (FEBRUARY 2004), SHOWING MAXIMUM  
TPH<sub>g</sub> CONCENTRATION OF 24,300 PPM AT 55 FEET BGS

MW-1

(ND)

(1,200 PPM @ 40')

LOCATION OF EXISTING MONITORING WELL MW-1 (AUGUST 2004),  
SHOWING MAXIMUM TPH<sub>g</sub> CONCENTRATION OF 1,200 PPM AT 40 FEET BGS

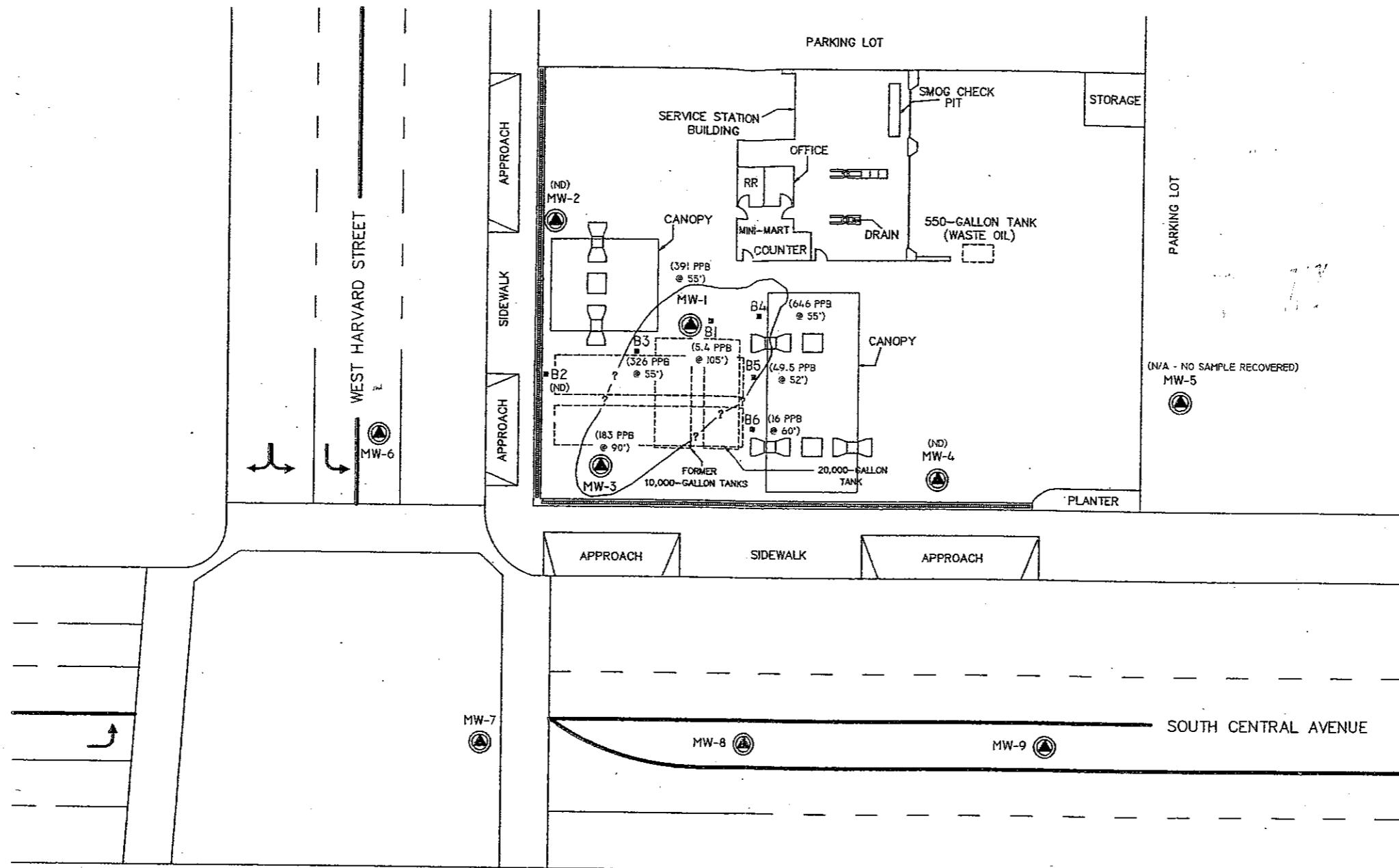
(ND)

TPH<sub>g</sub> CONCENTRATION NON-DETECTED



SCALE 1" = 30'

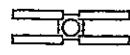
TASK	ADDITIONAL GROUNDWATER ASSESSMENT			
TITLE	APPROXIMATE LATERAL EXTENT OF TPH <sub>g</sub> (>500 MG/KG) SOIL CONTAMINATION PLUME			
NAME	UNOCAL SERVICE STATION 0353			
SITE ADDRESS	200 SOUTH CENTRAL AVENUE, GLENDALE, CA			
SCALE	1" = 30'	DRAWN	ED	APPROVED
DATE	09/29/04	SHEET	1 OF 1	DRAWING NUMBER 10902204
<b>EP ASSOCIATES</b> III NORTH BRAND BOULEVARD, SUITE 405 GLENDALE, CALIFORNIA 91202-3023 TEL. (818) 246-4499 FAX. (818) 246-4362			FIGURE 4	



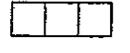
#### LEGEND



DISPENSER ISLANDS



HYDRAULIC HOIST



CLARIFIER



APPROXIMATE LATERAL EXTENT OF  
MTBE SOIL CONTAMINATION PLUME

B1  
■  
(5.4 PPB @ 105')

MW-1

(391 PPB @ 55')



LOCATION OF BORING B1 (FEBRUARY 2004), SHOWING MAXIMUM  
MTBE CONCENTRATION OF 5.4 PPB AT 105 FEET BGS

LOCATION OF MONITORING WELL MW-1 (AUGUST 2004), SHOWING MAXIMUM  
MTBE CONCENTRATION OF 391 PPB AT 55 FEET BGS

ND

MTBE CONCENTRATION NON-DETECTED



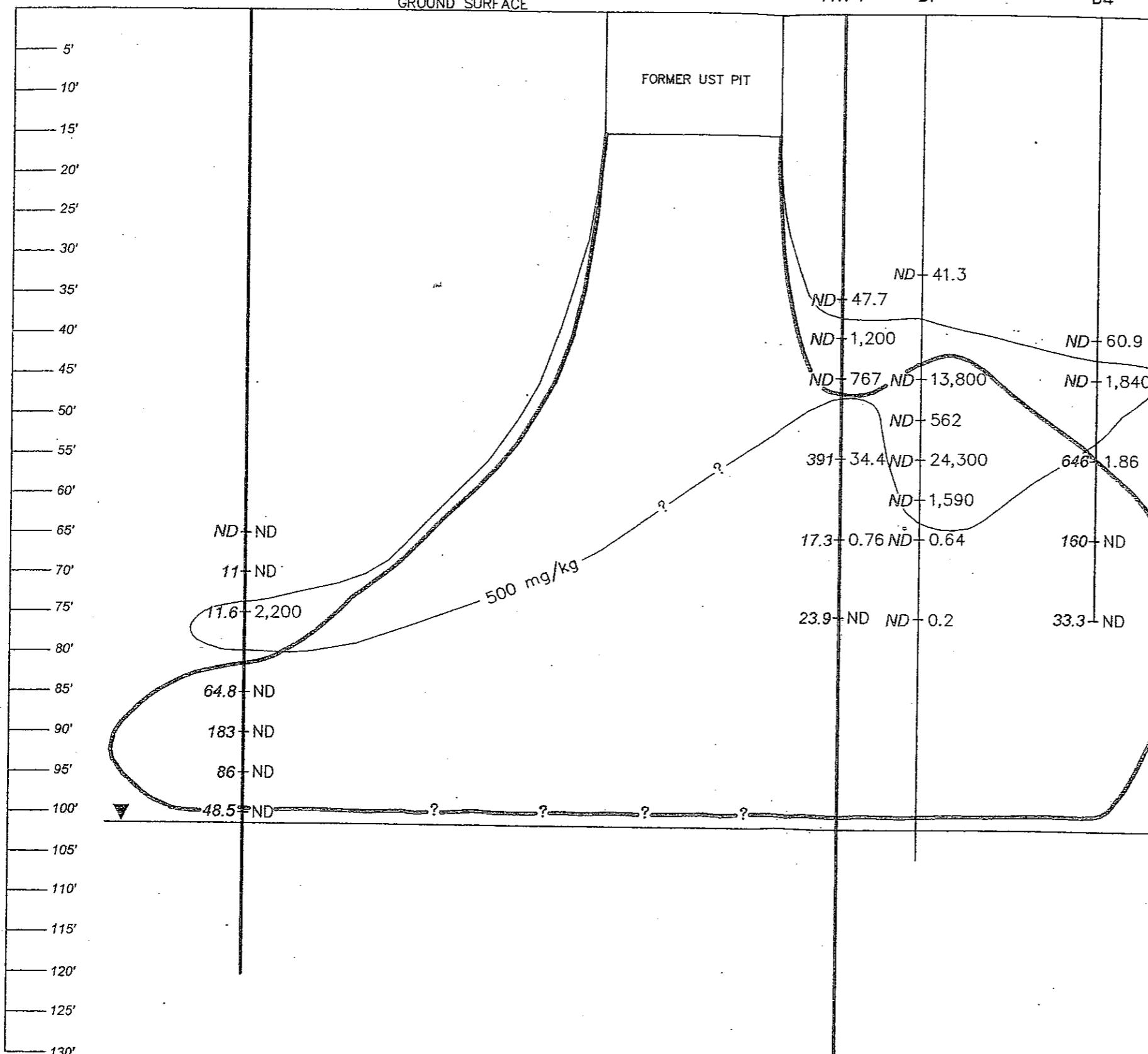
SCALE 1" = 30'

TASK	ADDITIONAL GROUNDWATER ASSESSMENT			
TITLE	APPROXIMATE LATERAL EXTENT OF MTBE SOIL CONTAMINATION PLUME			
NAME	UNOCAL SERVICE STATION 0353			
SITE ADDRESS	200 SOUTH CENTRAL AVENUE, GLENDALE, CA			
SCALE	1" = 30'	DRAWN	ED	APPROVED
DATE	09/29/04	SHEET	1 OF 1	DRAWING NUMBER 10902204
<span style="display: inline-block; vertical-align: middle; font-size: small;">EP ASSOCIATES 111 NORTH BRAND BOULEVARD, SUITE 405 GLENDALE, CALIFORNIA 91202-3023 TEL. (818) 246-4499 FAX. (818) 246-4362</span>				FIGURE 5

DEPTH

MW-3

GROUND SURFACE



A'

MW-1 BI

B4

## LEGEND

BI	LOCATION OF GEOPROBE BORING B1
ND - 41.3	MTBE CONCENTRATION (NON-DETECTED) TPHg CONCENTRATION (41.3 mg/kg)
MW-1	LOCATION OF MONITORING WELL MW-1
391 - 34.4	MTBE CONCENTRATION (391 ug/kg) TPHg CONCENTRATION (34.4 mg/kg)

▼ GROUNDWATER TABLE

A-A' CROSS SECTION A-A'

## NOTES:

MTBE IN BORING B1 WAS LIKELY DILUTED OUT OF LABORATORY RESULTS OF THE SOIL SAMPLES.

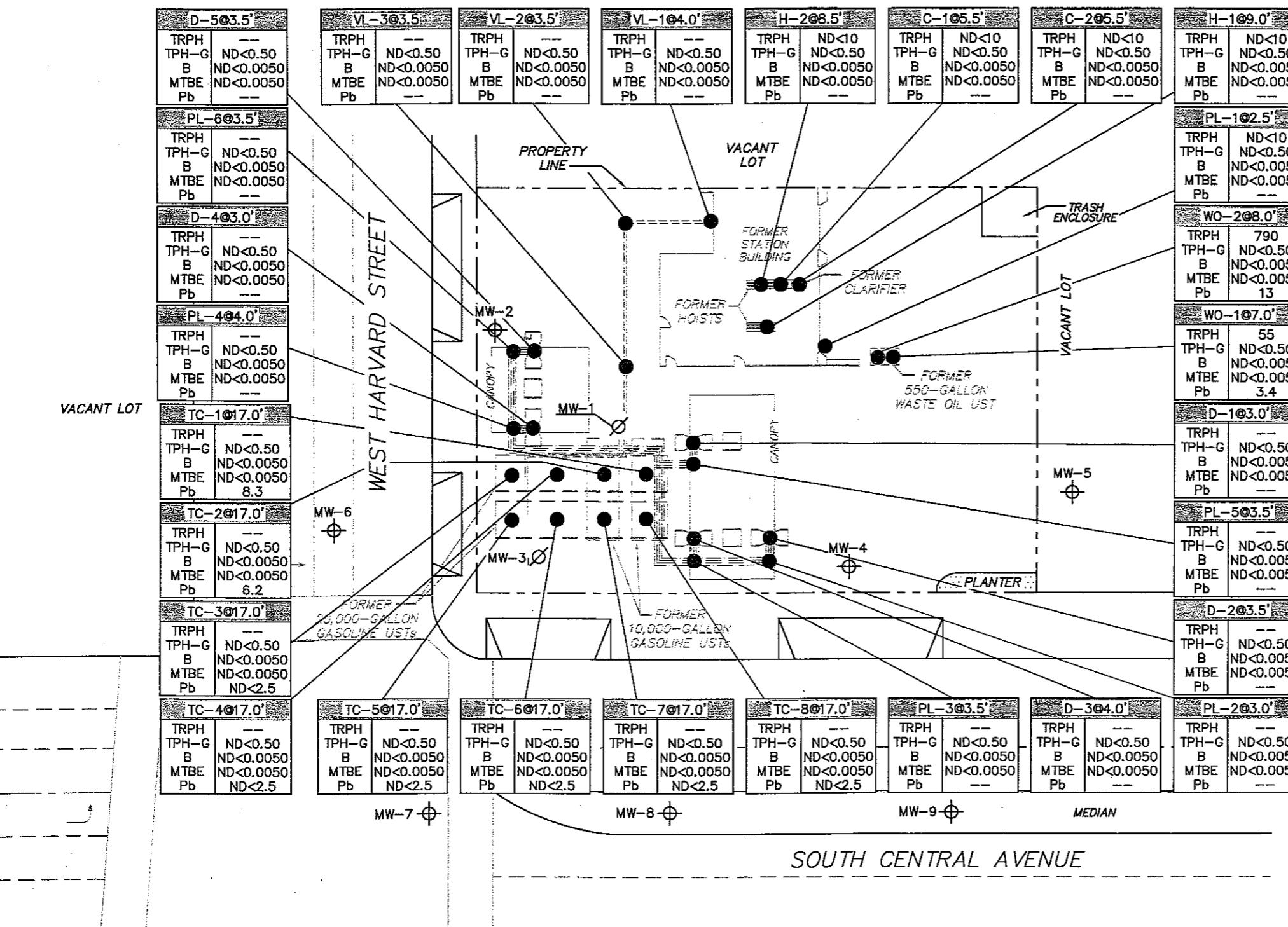
HORIZONTAL SCALE: 1" = 10'

VERTICAL SCALE: 1" = 20'



SCALE 1" = 15'

TASK	ADDITIONAL GROUNDWATER ASSESSMENT		
TITLE	APPROXIMATE VERTICAL EXTENT OF TPHg AND MTBE SOIL CONTAMINATION - AUGUST 2004		
NAME	UNOCAL SERVICE STATION 0353		
SITE ADDRESS	200 SOUTH CENTRAL AVENUE, GLENDALE, CA		
SCALE	1" = 15'	DRAWN	ED APPROVED VH REVISED 01/17/05
DATE	09/29/04	SHEET	1 OF 1 DRAWN NUMBER 10902204
<b>EP ASSOCIATES</b> 111 NORTH BRAND BOULEVARD, SUITE 405 GLENDALE, CALIFORNIA 91202-3023 TEL (818) 246-4499 FAX (818) 246-4362		FIGURE 6	



LEGEND	
●	Sample ID
●	Soil Sample with Petroleum Hydrocarbon Concentrations (mg/kg)
MW-9	○ Monitoring Well
MW-3	○ Abandoned Monitoring Well
—	Former Product Line
—	Former Vapor Line
—	Former Vent Line
—	Former Dispenser Island
□	Canopy Support

#### NOTES:

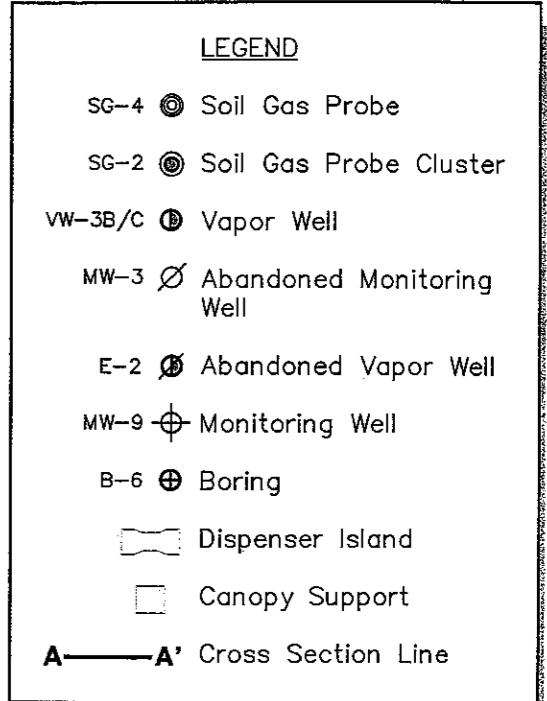
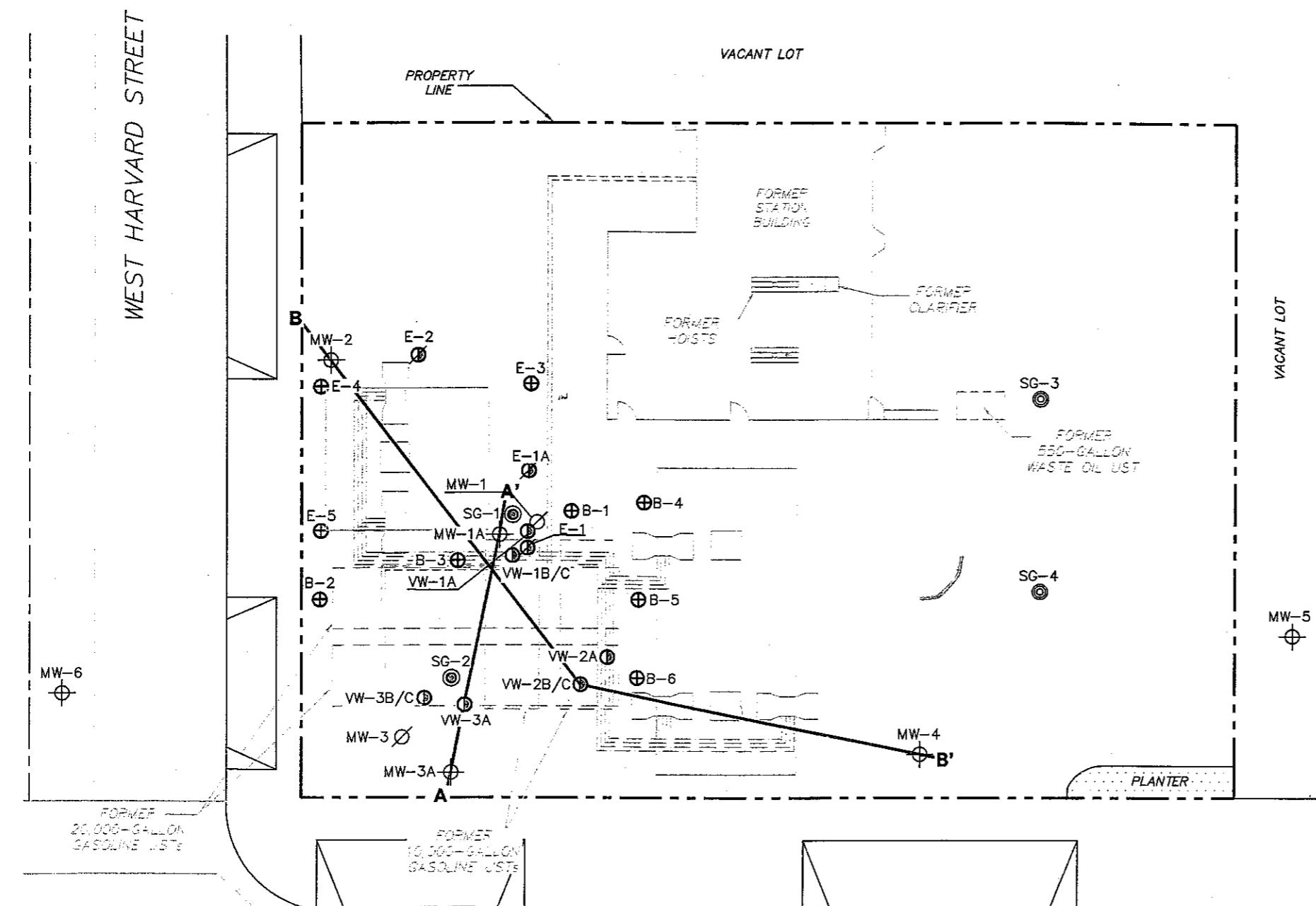
TRPH = total recoverable petroleum hydrocarbons.  
 TPH-G = total petroleum hydrocarbons as gasoline.  
 B = benzene. MTBE = methyl tertiary butyl ether.  
 Pb = lead. mg/kg = milligrams per kilogram.  
 ND = not detected at limit indicated.  
 UST = underground storage tank.  
 --- = not analyzed, measured, or collected.

#### SOIL SAMPLE RESULTS

Former 76 Station 0353  
200 South Central Avenue  
Glendale, California

**TRC**

**FIGURE 3**

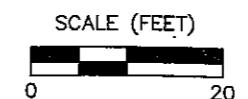


**NOTES:**

Modified from a map provided by EP Associates, dated 01/05. UST = underground storage tank.

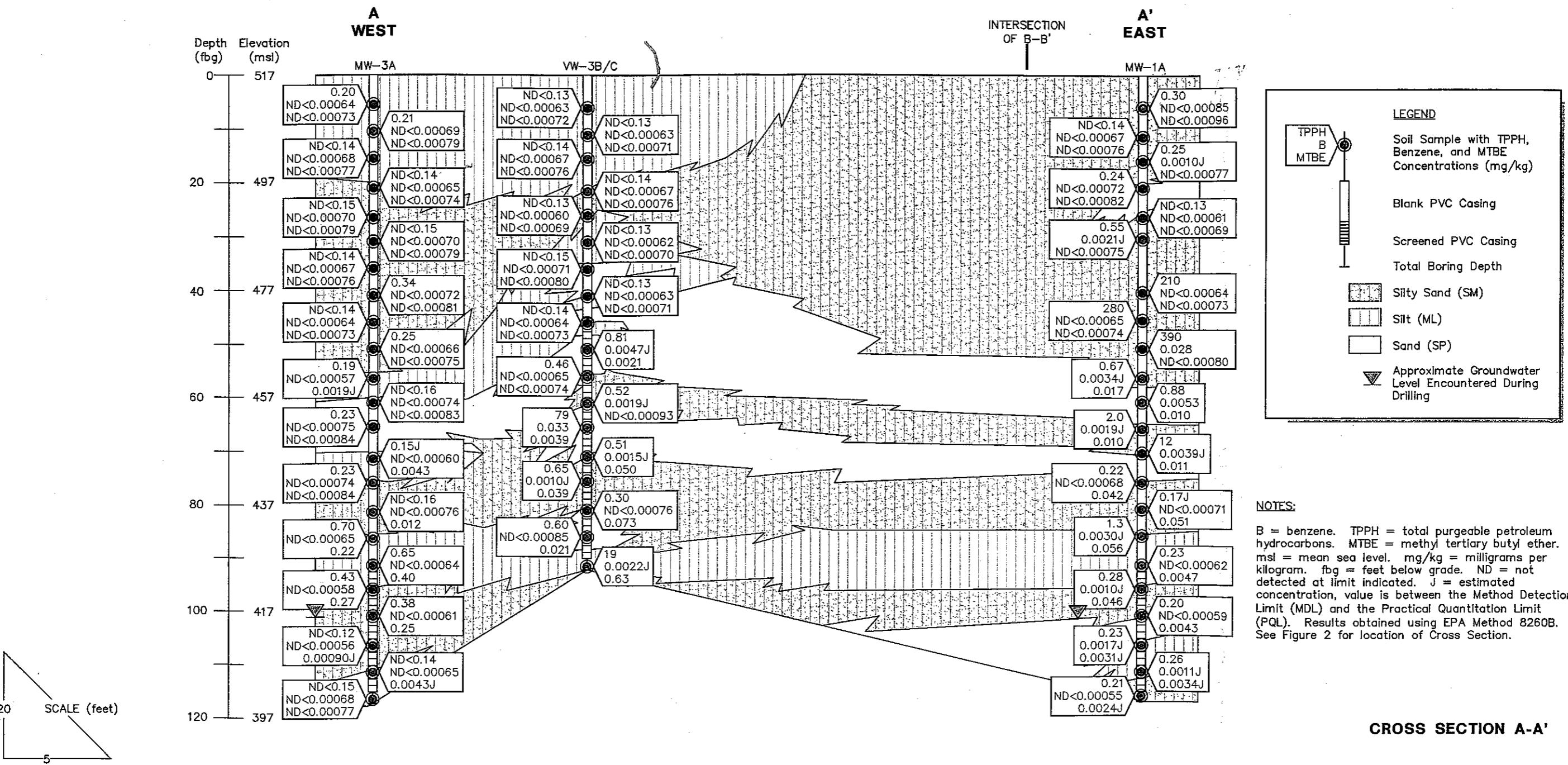
**SITE PLAN**

Former 76 Station 0353  
200 South Central Avenue  
Glendale, California

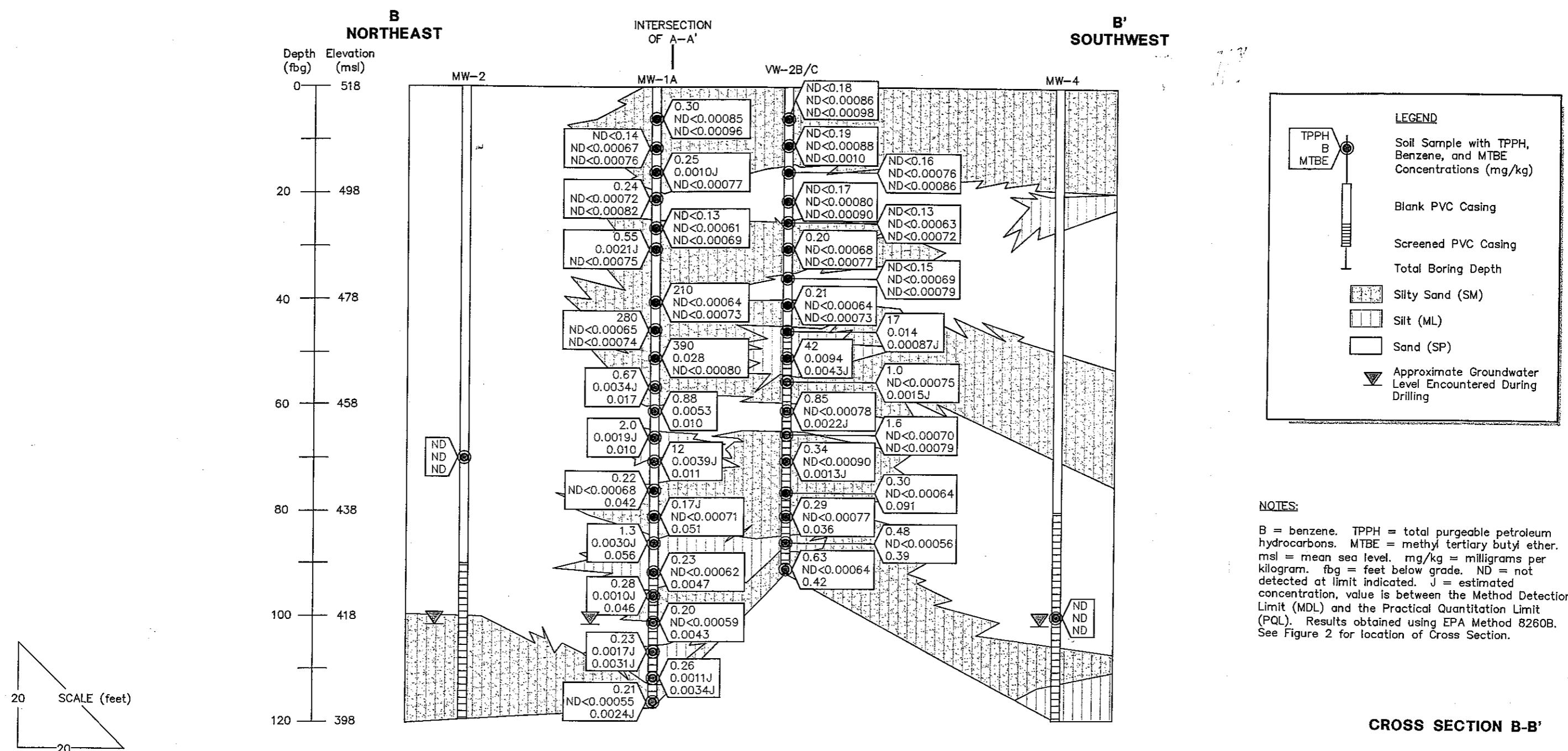


**TRC**

**FIGURE 2**

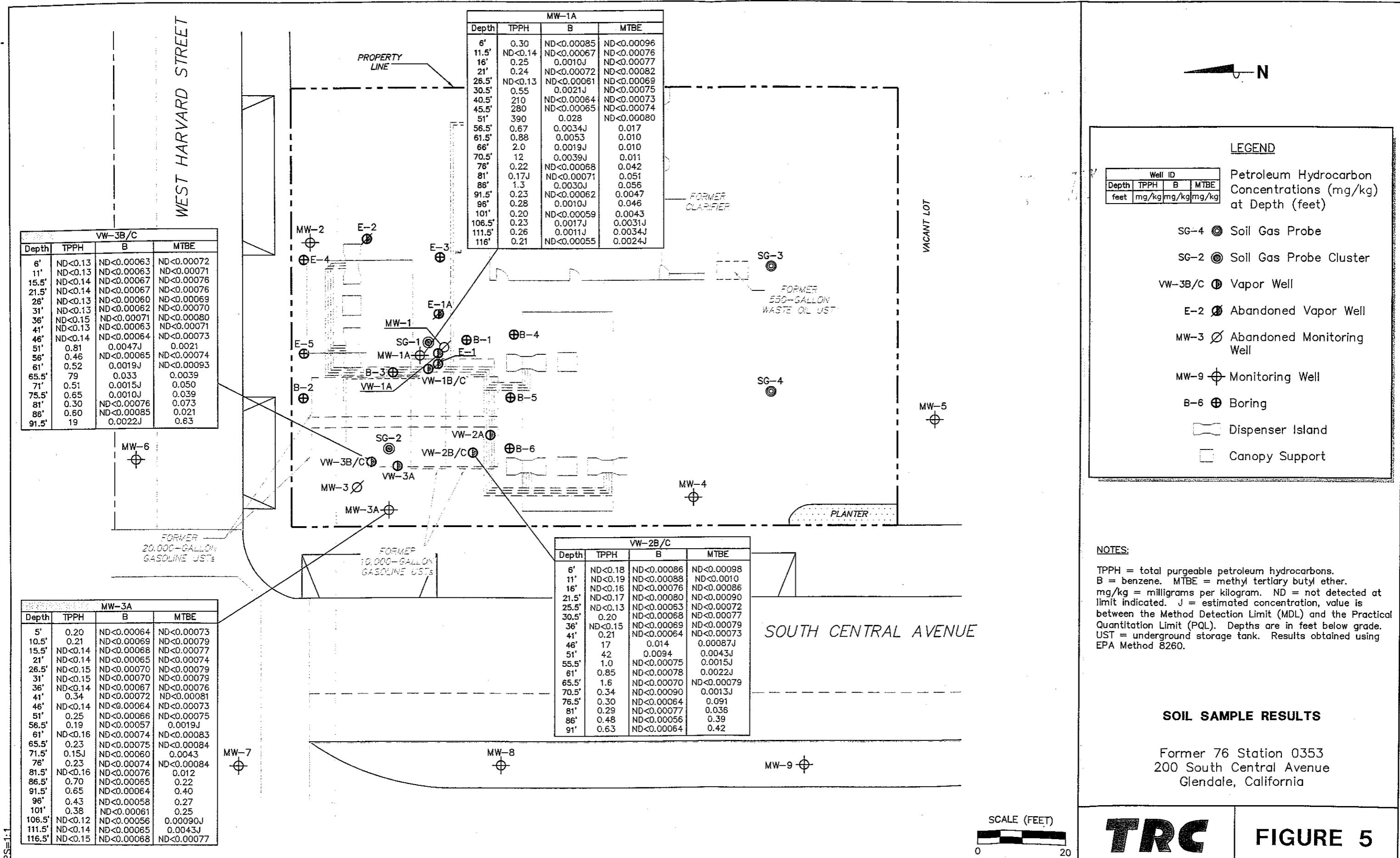


**FIGURE 3**



Former 76 Station 0353  
200 South Central Avenue  
Glendale, California

**FIGURE 4**



WEST HARVARD STREET

VACANT LOT

PROPERTY LINE

SG-1

Depth	TPH-G	B	MTBE
feet	mg/kg	mg/kg	mg/kg
15'	2.0	ND<0.0020	ND<0.0020
20'	2.3	0.0020	ND<0.0020
25'	1.9	ND<0.0020	ND<0.0020

FORMER STATION BUILDING

FORMER HOISTS

CLARIFIER

DISPENSER ISLAND

CANOPY SUPPORT

SG-3

Depth	TPH-G	B	MTBE
feet	mg/kg	mg/kg	mg/kg
15'	2.1	ND<0.0020	0.0020

SG-4

Depth	TPH-G	B	MTBE
feet	mg/kg	mg/kg	mg/kg
15'	1.9	0.0021	ND<0.0020

MW-4

MW-5

MW-6

MW-7

MW-8

MW-9

VW-1A

VW-1B/C

VW-2A

VW-2B/C

VW-3A

VW-3B/C

VW-4

VW-5

VW-6

VW-7

VW-8

VW-9

VW-10

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VW-170

VW-171

VW-172

VW-173

VW-174

VW-175

VW-176

VW-177

VW-178

VW-179

VW-180

**Table A-1**  
**Summary of Toxicity Criteria**  
**Former 76 Station 0353**  
**200 South Central Avenue, Glendale, California**

Chemical	Carcinogen Classification	CSF Inh. (mg/kg-day) <sup>*</sup>	CSF Inh. Source	Inh. Rfd (mg/kg-day)	Inh. RfD Source
<b>VOCs</b>					
Benzene	A	1.00E-01	CalEPA	8.60E-03	IRIS
Toluene	NC	NA	NA	1.10E-01	IRIS
Ethylbenzene	NC	NA	NA	2.90E-01	IRIS
Xylenes	NC	NA	NA	2.90E-02	IRIS
Methyl t-Butyl Ether (MTBE)	C*	9.10E-04	CalEPA	8.60E-01	IRIS
<b>Notes:</b>					
CSF = Cancer Slope Factor					
RfD = Reference Dose					
CalEPA = California Environmental Protection Agency					
IRIS = Integrated Risk Information System					
A = Known Human Carcinogen					
NA = Not Available					
NC = Not classified as to carcinogenicity					
* = Chemical not classified by IRIS as a carcinogen, but evaluated for potential carcinogenic effects based on toxicity values cited by CalEPA (CalEPA, 2004)					

**Table A-2**  
**Summary of Exposure Parameters**  
**Former 76 Station 0353**  
**200 South Central Avenue, Glendale, California**

Exposure Parameter	Units	Future Onsite Worker	Future Residential Occupant
		Inhalation of Vapors	Inhalation of Vapors
Inhalation Rate	m <sup>3</sup> /hour	1.25	0.83
Incidental Soil Ingestion Rate	mg/day		
Exposed Skin Surface Area	cm <sup>2</sup>		
Soil-Skin Adherence Factor	mg/cm <sup>2</sup> -day		
Exposure Interval	hour/day	10	24
Exposure Frequency	days/year	250	350
Exposure Duration	years	25	30
Body Weight	kg	70	70
Averaging Time (carcinogens)	days	25,550	25,550
Averaging Time (non-carcinogens)	days	9,125	10,950

#### References

#### Common Exposure Parameters

- Exposure parameters common to all exposure scenarios include:
- Body weight of 70 kg for adult exposures (EPA, 1997)
- Averaging time for carcinogens equal 365 days/year x 70 years (EPA, 1997)
- Averaging time for noncarcinogens equals exposure duration (30 years) x 365 days per year
- Exposure frequency of 250 days per year for occupational exposure scenario represents a maximum plausible exposure of five (5) days per week, fifty weeks per year
- Exposure frequency of 350 days per year for occupational exposure scenario represents a maximum plausible exposure of seven (7) days per week, fifty weeks per year
- Exposure duration of 30 years represents a Reasonable Maximum Exposure (RME) value

#### Inhalation of Vapors in Outdoor Air (from soil gas)

- Inhalation rate of 1.25 m<sup>3</sup>/hour based on light activity pattern (EPA, 1997)
- Inhalation rate of 0.83 m<sup>3</sup>/hour based on residential activity pattern (EPA, 1997)
- Exposure interval of 10 hours per day represents a maximum plausible exposure

**Table A-3**  
**Summary of Soil to Indoor Air Volatilization Factors**  
**Former 76 Station 0353**  
**200 South Central Avenue, Glendale, California**

**EQUATION**

$$VF_{is} = C_{sg} / C_{bldg}$$

<b>SYMBOLS AND DESCRIPTIONS</b>		<b>UNITS</b>	<b>VALUES</b>
$C_{sg}$ = Initial soil gas concentration <sup>[a]</sup> ,		ug/m <sup>3</sup>	see below
$C_{bldg}$ = Estimated infinite source building concentration <sup>[b]</sup>		ug/m <sup>3</sup>	see below
$VF_{is}$ = Indoor air volatilization factor (from soil gas)		unitless	see below

<b>Chemical</b>	<b><math>C_{sg}</math></b>	<b><math>C_{bldg}</math></b>	<b><math>Vf_{is}</math></b>
Benzene	6.82E+00	1.04E-03	6.56E+03
Toluene	8.04E+01	1.23E-02	6.54E+03
Ethylbenzene	5.74E+01	8.77E-03	6.55E+03
Xylenes	3.05E+02	4.65E-02	6.56E+03
Methyl t-Butyl Ether (MTBE)	2.35E+01	3.59E-03	6.55E+03

**Notes:**

[<sup>a</sup>] = Highest measured concentration of chemical in soil gas (August 22, 2005) was used with the Johnson & Ettinger (J & E) Spreadsheet, dated February 2003, in order to calculate COPC-specific volatilization factors

[<sup>b</sup>] = Indoor air volatilization factor derived from J & E Spreadsheet

**Table A-4**  
**Carcinogenic Risks from Inhalation of Vapors in Indoor Air from Soil**  
**Future Onsite Worker**  
**Former 76 Station 0353**  
**200 South Central Avenue, Glendale, California**

Chemical	Indoor Air Concentration in Soil Gas (mg/m <sup>3</sup> )	Volatilization Factor (unitless)	Estimated Indoor Air Concentration (mg/m <sup>3</sup> )	LADD	Inhalation CSF (mg/kg-day) <sup>-1</sup>	Risk
<b>VOCs</b>						
Benzene	6.82E-03	6.56E+03	1.04E-06	4.54E-08	1.00E-01	4.5E-09
Methyl t-Butyl Ether (MTBE)	2.35E-02	6.55E+03	3.59E-06	1.57E-07	9.10E-04	1.4E-10
					<b>PATHWAY TOTAL</b>	<b>4.7E-09</b>

Notes:

$$C_a = (C_{sg}/VF_i)$$

$C_a$  = Estimated concentration of chemical in air (mg/m<sup>3</sup>)

$C_{sg}$  = Measured concentration of chemical in soil gas (mg/m<sup>3</sup>) (maximum concentration detected from August 22, 2005 sampling )

$VF_i$  = Indoor air volatilization factor (unitless)

LADD = Lifetime Average Daily Dose =  $C_a \times IR \times ET \times EF \times ED \times 1/AT \times 1/BW$

$C_a$  = Chemical concentration in air (mg/m<sup>3</sup>)

IR = Inhalation rate (m<sup>3</sup>/hour)

ET = Exposure time (hours/day)

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

AT = Averaging time, carcinogens (days)

BW = Body weight (kg)

CSF = Cancer Slope Factor

**Table A-5**  
**Carcinogenic Risks from Inhalation of Vapors in Indoor Air from Soil**  
**Future Residential Occupant**  
**Former 76 Station 0353**  
**200 South Central Avenue, Glendale, California**

Chemical	Indoor Air Concentration in Soil Gas (mg/m <sup>3</sup> )	Indoor Air Volatilization Factor (unitless)	Estimated Indoor Air Concentration (mg/m <sup>3</sup> )	LADD	Inhalation CSF	Risk
<b>VOCs</b>						
Benzene	6.82E-03	6.56E+03	1.04E-06	1.22E-07	1.00E-01	1.2E-08
Methyl t-Butyl Ether (MTBE)	2.35E-02	6.55E+03	3.59E-06	4.20E-07	9.10E-04	3.8E-10
					<b>PATHWAY TOTAL</b>	<b>1.3E-08</b>

Notes:

$$C_a = (C_{sg}/VF_i)$$

$C_a$  = Estimated concentration of chemical in air (mg/m<sup>3</sup>)

$C_{sg}$  = Concentration of chemical in soil gas (mg/m<sup>3</sup>) (maximum concentration detected from August 22, 2005 sampling)

$VF_i$  = Indoor air volatilization factor (unitless)

LADD = Lifetime Average Daily Dose =  $C_a \times IR \times ET \times EF \times ED \times 1/AT \times 1/BW$

$C_a$  = Chemical concentration in air (mg/m<sup>3</sup>)

IR = Inhalation rate (m<sup>3</sup>/hour)

ET = Exposure time (hours/day)

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

AT = Averaging time, carcinogens (days)

BW = Body weight (kg)

CSF = Cancer Slope Factor

**Table A-6**  
**Non-Carcinogenic Risks from Inhalation of Vapors in Indoor Air from Soil**  
**Future Onsite Worker**  
**Former 76 Station 0353**  
**200 South Central Avenue, Glendale, California**

Chemical	Concentration in Soil Gas (mg/m <sup>3</sup> )	Indoor Air Volatilization Factor (unitless)	Estimated Indoor Air Concentration (mg/m <sup>3</sup> )	Average Daily Dose (mg/kg-day)	Inhalation RfD (mg/kg-day)	Hazard Index
<b>VOCs</b>						
Benzene	6.82E-03	6.56E+03	1.04E-06	1.27E-07	8.60E-03	0.000015
Toluene	8.04E-02	6.54E+03	1.23E-05	1.50E-06	1.10E-01	0.000014
Ethylbenzene	5.74E-02	6.55E+03	8.77E-06	1.07E-06	2.90E-01	0.0000037
Xylenes	3.05E-01	6.56E+03	4.65E-05	5.69E-06	2.90E-02	0.00020
Methyl t-Butyl Ether (MTBE)	2.35E-02	6.55E+03	3.59E-06	4.39E-07	8.60E-01	0.0000051
<b>PATHWAY TOTAL</b>						<b>0.00023</b>

Notes:

$$C_a = (C_{sg}/VF_i)$$

$C_a$  = Estimated concentration of chemical in air (mg/m<sup>3</sup>)

$C_{sg}$  = Concentration of chemical in soil gas (mg/m<sup>3</sup>) (maximum concentration detected from August 22, 2005 sampling)

$VF_i$  = Indoor air volatilization factor (unitless)

$$\text{Average Daily Dose} = C_a \times IR \times ET \times EF \times ED \times 1/AT \times 1/BW$$

$C_a$  = Chemical concentration in air (mg/m<sup>3</sup>)

IR = Inhalation rate (m<sup>3</sup>/hour)

ET = Exposure time (hours/day)

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

AT = Averaging time, non-carcinogen (days)

BW = Body weight (kg)

RfD = Reference Dose

**Table A-7**  
**Non-Carcinogenic Risks from Inhalation of Vapors in Indoor Air from Soil**  
**Future Residential Occupant**  
**Former 76 Station 0353**  
**200 South Central Avenue, Glendale, California**

Chemical	Concentration in Soil Gas (mg/m <sup>3</sup> )	Indoor Air Volatilization Factor (unitless)	Estimated Indoor Air Concentration (mg/m <sup>3</sup> )	Average Daily Dose (mg/kg-day)	Inhalation RfD (mg/kg-day)	Hazard Index
<b>VOCs</b>						
Benzene	6.82E-03	6.56E+03	1.04E-06	2.84E-07	8.60E-03	0.000033
Toluene	8.04E-02	6.54E+03	1.23E-05	3.36E-06	1.10E-01	0.000031
Ethylbenzene	5.74E-02	6.55E+03	8.77E-06	2.39E-06	2.90E-01	0.0000083
Xylenes	3.05E-01	6.56E+03	4.65E-05	5.69E-06	2.90E-02	0.00020
Methyl t-Butyl Ether (MTBE)	2.35E-02	6.55E+03	3.59E-06	9.80E-07	8.60E-01	0.0000011
<b>PATHWAY TOTAL</b>						<b>0.0003</b>

Notes:

$$C_a = (C_{sg}/VF_i)$$

$C_a$  = Estimated concentration of chemical in air (mg/m<sup>3</sup>)

$C_{sg}$  = Concentration of chemical in soil gas (mg/m<sup>3</sup>) (maximum concentration detected from August 22, 2005 sampling)

$VF_i$  = Indoor air volatilization factor (unitless)

$$\text{Average Daily Dose} = C_a \times IR \times ET \times EF \times ED \times 1/AT \times 1/BW$$

$C_a$  = Chemical concentration in air (mg/m<sup>3</sup>)

IR = Inhalation rate (m<sup>3</sup>/hour)

ET = Exposure time (hours/day)

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

AT = Averaging time, non-carcinogen (days)

BW = Body weight (kg)

RfD = Reference Dose

**Table A-8**  
**Summary of Carcinogenic and Noncarcinogenic Risk Estimates for All Pathways**  
**Future Onsite Worker and Residential Occupant Exposures**  
**Former 76 Station 0353**  
**200 South Central Avenue, Glendale, California**

Exposure Pathway and Chemical	Future Onsite Worker		Future Residential Occupant	
	Risk	Hazard Index	Risk	Hazard Index
<b>Inhalation of Vapors - Soil</b>				
Benzene	4.5E-09	0.000015	1.2E-08	0.000033
Toluene	NA	0.000014	NA	0.000031
Ethylbenzene	NA	0.0000037	NA	0.0000083
Xylenes	NA	0.00020	NA	0.00020
Methyl t-Butyl Ether (MTBE)	1.4E-10	0.00000051	3.8E-10	0.0000011
<b>Pathway Total</b>	<b>5E-09</b>	<b>0.0002</b>	<b>1E-08</b>	<b>0.0003</b>

Soil Gas Concentration Data			
ENTER	ENTER	Soil gas conc., $C_g$ ( $\mu\text{g}/\text{m}^3$ )	ENTER
Chemical CAS No.	OR	Soil gas conc., $C_g$ ( $\mu\text{g}/\text{m}^3$ )	Soil gas conc., $C_g$ ( $\mu\text{g}/\text{m}^3$ )
(numbers only, no dashes)		2.10E-03	Chemical
71432			Benzene

Soil Gas Concentration Data			
ENTER	ENTER	Soil gas conc., $C_g$ ( $\mu\text{g}/\text{m}^3$ )	ENTER
Chemical CAS No.	OR	Soil gas conc., $C_g$ ( $\mu\text{g}/\text{m}^3$ )	Soil gas conc., $C_g$ ( $\mu\text{g}/\text{m}^3$ )
(numbers only, no dashes)		2.10E-03	Chemical
71432			Benzene

Soil Gas Concentration Data			
ENTER	ENTER	ENTER	ENTER
Depth below grade to bottom of enclosed space floor, $L_f$ (cm)	Soil gas sampling depth below grade, $L_s$ (cm)	Average soil temperature, $T_s$ ( $^{\circ}\text{C}$ )	Total must add up to value of $L_s$ (cell F24)
			Thickness of soil stratum A, $h_A$ (cm)
			Thickness of soil stratum B, $h_B$ (Enter value or 0)
			Thickness of soil stratum C, $h_C$ (Enter value or 0)
			(used to estimate soil vapor permeability, $k_v$ ( $\text{cm}^2/\text{s}$ ))
457	457	20	457
			0
			0
			S

Soil Gas Concentration Data			
ENTER	ENTER	ENTER	ENTER
Stratum A SCS soil type	Stratum A soil dry bulk density, $\rho_b^A$ ( $\text{g}/\text{cm}^3$ )	Stratum A soil total porosity, $n^A$ (unless) (cm <sup>3</sup> /cm <sup>3</sup> )	Thickness of soil stratum A, $h_A$ (cm)
			Thickness of soil stratum B, $h_B$ (cm)
			Thickness of soil stratum C, $h_C$ (cm)
			(used to estimate soil vapor permeability, $k_v$ ( $\text{cm}^2/\text{s}$ ))
S	1.66	0.375	0.054
			S

Soil Gas Concentration Data			
ENTER	ENTER	ENTER	ENTER
Enclosed space floor thickness, $L_{enc}$ (cm)	Soil/building pressure differential, $\Delta P$ ( $\text{g}/\text{cm} \cdot \text{s}^{-2}$ )	Enclosed space floor length, $L_e$ (cm)	Enclosed space height, $W_h$ (cm)
			Height of floor/wall seam crack, $w$ (cm)
9	40	100	1000
			244
			0.1
			6

Soil Gas Concentration Data			
ENTER	ENTER	ENTER	ENTER
Averaging time for carcinogens, ATc (yrs)	Averaging time for noncarcinogens, ATnc (yrs)	Exposure duration, ED (yrs)	Exposure frequency, EF (days/yr)
70	30	30	350

END

## INTERMEDIATE CALCULATIONS SHEET

	Stratum A soil air-filled porosity, $\theta_a^A$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum B soil air-filled porosity, $\theta_a^B$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum C soil air-filled porosity, $\theta_a^C$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum A effective total fluid saturation, $S_{te}$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum A soil intrinsic permeability, $k_i$ (cm <sup>2</sup> )	Stratum A relative air permeability, $k_{ta}$ (cm <sup>2</sup> )	Stratum A soil effective vapor permeability, $k_v$ (cm <sup>2</sup> )	Floor- wall seam perimeter, $X_{crack}$ (cm)	Bldg. ventilation rate, $Q_{building}$ (cm <sup>3</sup> /s)			
Exposure duration, $\tau$ (sec)	9.46E+08	1	0.321	0.321	0.321	0.003	1.01E-07	0.998	1.01E-07	4.000	6.92E+00	4.07E+05
Area of enclosed space below grade, $A_b$ (cm <sup>2</sup> )	2.83E+06	1.41E+04	457	8.019	4.39E-03	1.83E-01	1.78E-04	1.42E-02	0.00E+00	0.00E+00	1.42E-02	1
Convective path length, $L_p$ (cm)	457	6.82E+00	0.10	6.22E+01	1.42E-02	4.00E+02	5.70E+42	1.53E-04	1.04E-03	7.8E-06	3.0E-02	END
Area of crack- to-total area ratio, $\eta$ (unitless)	2.83E+06	1.41E+04	Crack depth below grade,	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,T}$ (cal/mol)	Henry's law constant at ave. soil temperature, $H_g$ (atm·m <sup>3</sup> /mol)	Henry's law constant at ave. soil temperature, $H_{rs}$ (unitless)	Vapor viscosity at ave. soil temperature, $H_{rs}$ (g/cm <sup>2</sup> s)	Stratum A effective diffusion coefficient, $D^{eff}_A$ (cm <sup>2</sup> /s)	Stratum B effective diffusion coefficient, $D^{eff}_B$ (cm <sup>2</sup> /s)	Stratum C effective diffusion coefficient, $D^{eff}_C$ (cm <sup>2</sup> /s)	Total overall effective diffusion coefficient, $D^{eff}_{tot}$ (cm <sup>2</sup> /s)	
Convection Source vapor conc., $C_{source}$ ( $\mu\text{g}/\text{m}^3$ )	457	6.82E+00	Crack radius, $r_{crack}$ (cm)	Average vapor flow rate into bldg., $Q_{sol}$ (cm <sup>3</sup> /s)	Crack effective diffusion coefficient, $D_{crack}$ (cm <sup>2</sup> /s)	Area of crack, $A_{crack}$ (cm <sup>2</sup> )	Exponent of equivalent foundation Peclet number, $\exp(P\theta)$ (unitless)	Infinite source indoor attenuation coefficient, $\alpha$	Infinite source bldg. conc., $C_{building}$ ( $\mu\text{g}/\text{m}^3$ )	Unit risk factor, $URF$	Reference conc., $RFC$ ( $\mu\text{g}/\text{m}^3$ )	

## DATA ENTRY SHEET

**SG-ADV**  
Version 3.1; 02/04

Reset to  
Defaults

Soil Gas Concentration Data			
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., $C_g$ ( $\mu\text{g/m}^3$ )	ENTER Soil gas conc., $C_g$ ( $\mu\text{g/m}^3$ )	Chemical
109893		2.10E-02	Toluene

**MORE**  
↓

ENTER Soil gas sampling depth below grade to bottom of enclosed space (floor, $L_f$ (cm))			
ENTER Average soil temperature, $T_s$ (°C)			
ENTER Depth below grade to bottom of enclosed space (floor, $L_f$ (cm))	ENTER Thickness of soil stratum A, $h_A$ (cm)	ENTER Thickness of soil stratum B, $h_B$ (cm)	ENTER Thickness of soil stratum C, $h_C$ (cm)
457	457	20	457

ENTER

ENTER&lt;/

## INTERMEDIATE CALCULATIONS SHEET

	Stratum A soil air-filled porosity, $\theta_a^A$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum B soil air-filled porosity, $\theta_a^B$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum C soil air-filled porosity, $\theta_a^C$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum A effective total fluid saturation, $S_{\text{tot}}^A$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum A soil intrinsic permeability, $k_s$ (cm <sup>2</sup> )	Stratum A soil effective vapor permeability, $k_v$ (cm <sup>2</sup> )	Floor- wall seam perimeter, $X_{\text{seam}}$ (cm)	Bldg. ventilation rate, $Q_{\text{building}}$ (cm <sup>3</sup> /s)
Exposure duration, $\tau$ (sec)	9.46E+08	1	0.321	0.321	0.321	0.003	1.01E-07	0.998
Source- building separation, $L_r$ (cm)							1.01E-07	4.000
Area of enclosed spaces below grade, $A_b$ (cm <sup>2</sup> )								8.04E-01
Crack- to-total area ratio, $\eta$								4.07E-05
Area of enclosed spaces below grade, $A_b$ (cm <sup>2</sup> )	2.85E+06	1.41E-04	467	9.045	5.10E-03	2.12E-01	1.78E-04	1.41E-02
Convection path length, $l_p$ (cm)								1
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)	457	8.04E+01	0.10	6.22E+01	1.41E-02	4.00E+02	1.77E+43	1.53E-04
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}$ (cm <sup>2</sup> )								
Infinite source indoor attenuation coefficient, $\alpha$								
Unit risk factor, $URF$								
Reference conc., $RIC$ (mg/m <sup>3</sup> )								
Convection path length, $l_p$ (cm)								
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )								
Crack radius, $r_{\text{crack}}$ (cm)								
Average vapor flow rate into bldg., $Q_{\text{soil}}$ (cm <sup>3</sup> /s)								
Exponent of equivalent foundation Padlet number, $\exp(P_0)$								
Area of crack, $A_{\text{crack}}</math$								

Soil vapor permeability									
Stratum A					Stratum B				
ENTER Depth below grade to bottom of enclosed space floor, $L_f$ (cm)	ENTER Soil gas sampling depth below grade, $L_s$ (cm)	ENTER Average soil temperature, $T_s$ (°C)	ENTER Thickness of soil stratum A, $h_A$ (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) $h_B$ (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) $h_C$ (cm)	ENTER Thickness of soil stratum A SCS soil type (used to estimate soil vapor permeability), $k_v$ ( $\text{cm}^2$ )	ENTER Thickness of soil stratum B SCS soil type (used to estimate soil vapor permeability), $k_v$ ( $\text{cm}^2$ )	ENTER Thickness of soil stratum C SCS soil type (used to estimate soil vapor permeability), $k_v$ ( $\text{cm}^2$ )	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability), $k_v$ ( $\text{cm}^2$ )
457	457	20	457	0	0	457	0	0	S
S	1.66	0.375	0.054	S	1.66	0.375	0.054	S	1.66
ENTER Enclosed space floor thickness, $L_{\text{rack}}$ (cm)	ENTER Soil-bldg. pressure differential, $\Delta P$ ( $\text{dynes/s}^2$ )	ENTER Enclosed space floor length, $L_B$ (cm)	ENTER Enclosed space floor width, $W_S$ (cm)	ENTER Enclosed space height, $H_B$ (cm)	ENTER Floor-wall seam crack width, $w$ (cm)	ENTER Indoor air exchange rate, ER ( $1/\text{h}$ )	ENTER Average time for noncarcinogens, $A_{\text{TC}}^{n_c}$ (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
9	40	1000	1000	244	0.1	6	70	30	350

END

## INTERMEDIATE CALCULATIONS SHEET

	Stratum A soil air-filled porosity, $\theta_a^A$ ( $\text{cm}^3/\text{cm}^3$ )	Stratum B soil air-filled porosity, $\theta_a^B$ ( $\text{cm}^3/\text{cm}^3$ )	Stratum C soil air-filled porosity, $\theta_a^C$ ( $\text{cm}^3/\text{cm}^3$ )	Stratum A effective total fluid saturation, $S_{\text{fe}}$ ( $\text{cm}^3/\text{cm}^3$ )	Stratum A soil intrinsic permeability, $k_i$ ( $\text{cm}^2$ )	Stratum A relative air permeability, $k_r$ ( $\text{cm}^2$ )	Stratum A soil effective vapor permeability, $k_v$ ( $\text{cm}^2$ )	Floor- wall seam perimeter, $X_{\text{crack}}$ (cm)	Bldg. ventilation rate, $Q_{\text{building}}$ ( $\text{cm}^3/\text{s}$ )
Exposure duration, $\tau$ (sec)	9.46E+08	1	0.321	0.321	0.321	0.003	1.01E-07	0.998	1.01E-07
Source- building separation, $L_T$ (cm)								4.000	5.74E+01
Area of enclosed space below grade, $A_B$ ( $\text{cm}^2$ )	2.89E+06	1.41E-04	457	10.040	5.89E-03	2.45E-01	1.78E-04	1.21E-02	0.00E+00
Convection path length, $L_p$ (cm)	457	5.74E+01	0.10	6.22E+01	1.21E-02	4.00E+02	1.47E+50	1.55E-04	8.77E-03
Source vapor conc., $C_{\text{source}}$ ( $\mu\text{g}/\text{m}^3$ )								NA	1.0E+00
Crack radius, $r_{\text{crack}}$ (cm)									
Exponent of equivalent foundation Peclet number, $\exp(P_f)$									
Crack effective diffusion coefficient, $D_{\text{crack}}$ ( $\text{cm}^2/\text{s}$ )									
Area of crack, $A_{\text{crack}}$ ( $\text{cm}^2$ )									
Average vapor flow rate into bldg., $Q_{\text{soil}}$ ( $\text{cm}^3/\text{s}$ )									
Infinite source indoor attenuation coefficient, $\alpha$									
Unit risk factor, $URF$									
Reference conc., $C_{\text{building}}$ ( $\mu\text{g}/\text{m}^3$ )									

END

[Reset to  
Defaults](#)

ENTER		Soil Gas Concentration Data		ENTER	
Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., $C_g$ ( $\mu\text{m}^3$ )	OR		Soil gas conc., $C_g$	Chemical (ppmv)
95476				6.90E-02	o-Xylene

**MORE** 

ENTER Depth below grade to bottom of enclosed space, $L_f$ (cm)	ENTER Soil gas sampling depth below grade, $L_u$ (cm)	ENTER Average soil temperature, $T_s$ (°C)	ENTER ENTER Total must add up to value of $L_s$ (cell F24)	ENTER Thickness of soil stratum A, $h_A$ (cm)	ENTER Thickness of soil stratum B, $h_B$ (Enter value or 0)	ENTER Thickness of soil stratum C, $h_C$ (Enter value or 0)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability, $k_v$ (cm <sup>2</sup> ))	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability, $k_v$ (cm <sup>2</sup> ))	ENTER Stratum C soil total porosity, $n^c$ (%) OR	ENTER Stratum C soil water-filled porosity, $n_w^c$ (%)	ENTER Stratum C soil water-filled porosity, $n_w^c$ (%)
457	457	20		457	0	0					
ENTER Total must add up to value of $L_s$ (cell F24)											
ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density, $\rho_b^A$ ( $\text{g/cm}^3$ )	ENTER Stratum A soil total porosity, $n^A$ (unless) (unless)	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density, $\rho_b^B$ ( $\text{g/cm}^3$ )	ENTER Stratum B soil total porosity, $n^B$ (%)	ENTER Stratum B soil water-filled porosity, $n_w^B$ (%)	ENTER Stratum C soil dry bulk density, $\rho_b^C$ ( $\text{g/cm}^3$ )	ENTER Stratum C soil total porosity, $n^C$ (%)	ENTER Stratum C soil water-filled porosity, $n_w^C$ (%)	ENTER Stratum C soil total porosity, $n^C$ (%)	ENTER Stratum C soil water-filled porosity, $n_w^C$ (%)
S	1.66	0.375	S	0.054	S	1.66	S	0.054	S	1.66	S
ENTER Enclosed space floor thickness, $L_{-ack}$ (cm)	ENTER Soil/building pressure differential, $\Delta P$ ( $\text{g/cm}\cdot\text{s}^2$ )	ENTER Enclosed space floor length, $L_g$ (cm)	ENTER Enclosed space floor width, $W_B$ (cm)	ENTER Enclosed space height, $H_B$ (cm)	ENTER Floor-wall seam crack width, $w$ (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate $Q_{\text{soil}}$ (1/m)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate $Q_{\text{soil}}$ (1/m)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate $Q_{\text{soil}}$ (1/m)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate $Q_{\text{soil}}$ (1/m)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate $Q_{\text{soil}}$ (1/m)
9	40	1000	1000	244	0.1	1	6				
ENTER Averaging time for carcinogens, $AT_c$ (yrs)	ENTER Averaging time for noncarcinogens, $AT_{nc}$ (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)
70	30	30	30	30	30	30	30	30	30	30	30
ENTER Averaging time for carcinogens, $AT_c$ (yrs)											
ENTER Averaging time for noncarcinogens, $AT_{nc}$ (yrs)											
ENTER Exposure duration, ED (yrs)											
ENTER Exposure frequency, EF (days/yr)											

**END**

INTERMEDIATE CALCULATIONS SHEET

	Stratum A soil air-filled porosity, $\theta_a^A$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum B soil air-filled porosity, $\theta_a^B$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum C soil air-filled porosity, $\theta_a^C$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum A effective total fluid saturation, $S_{\text{tot}}$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum A soil intrinsic permeability, $k_i$ (cm <sup>2</sup> )	Stratum A relative air permeability, $k_r$ (cm <sup>2</sup> )	Stratum A soil effective vapor permeability, $k_v$ (cm <sup>2</sup> )	Floor- wall seam perimeter, $X_{\text{seam}}$ (cm)	Bldg. ventilation rate, $Q_{\text{building}}$ (cm <sup>3</sup> /s)			
Exposure duration, $\tau$ (sec)	9.46E+08	1	0.321	0.321	0.321	0.003	1.01E-07	0.998	1.01E-07	4.000	3.05E-02	4.07E-05
Area of enclosed space below grade, $A_b$ (cm <sup>2</sup> )	2.85E+06	1.41E-04	457	10.291	3.85E-03	1.60E-01	1.78E-04	1.44E-02	0.00E+00	1.41E-02	1	1
Convection path length, $L_p$ (cm)	457	3.05E+02	0.10	6.22E+01	1.41E-02	4.00E+02	1.77E+43	1.53E-04	4.65E-02	NA	1.0E-01	1
Source vapor conc., $C_{\text{source}}$ (ug/m <sup>3</sup> )												

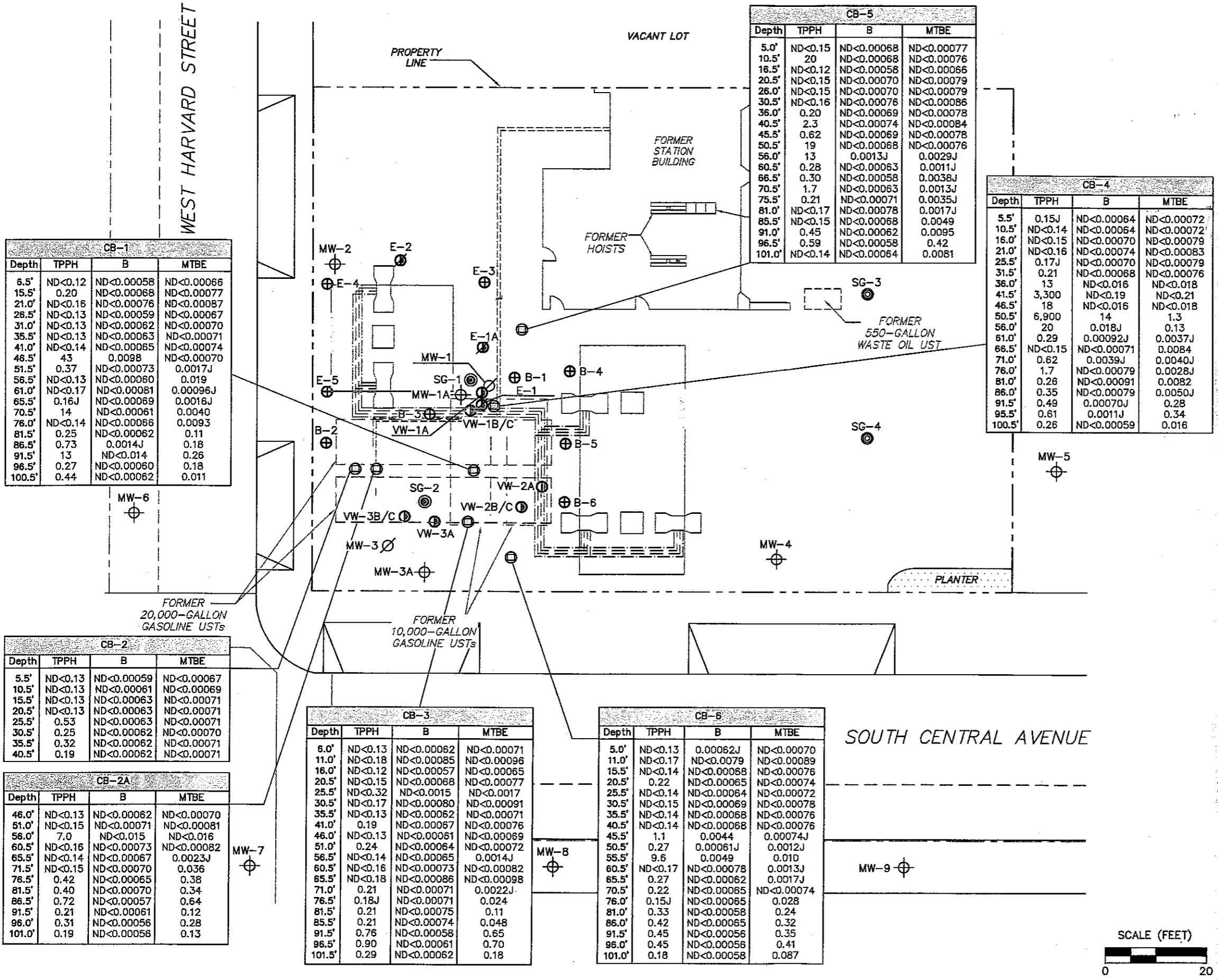
END

ENTER Chemical CRS No. (numbers only, no dashes)		Soil Gas Concentration Data		ENTER Soil gas conc., $C_g$ ( $\mu\text{g}/\text{m}^3$ )		ENTER Soil gas conc., $C_q$ ( $\mu\text{g}/\text{m}^3$ )		Chemical	
163-044				8.40E-03		MTBE			
ENTER Depth below grade to bottom of enclosed space floor, $L_f$ (cm)	ENTER Soil gas sampling depth below grade, $L_s$ (cm)	ENTER Average soil temperature, $T_s$ (°C)	ENTER Thickness of soil stratum A, $h_A$ (cm)	ENTER Thickness of soil stratum B, $h_B$ (cm)	ENTER Thickness of soil stratum C, $h_C$ (cm)	ENTER Total thickness of soil (Enter value or 0)	ENTER Thickness of soil (Enter value or 0)	ENTER Soil stratum A SCS soil type lookup parameters	ENTER Soil stratum B SCS soil type lookup parameters
437	437	20	457	0	0	0	0	S	S
ENTER Stratum A SCS soil type lookup Soil Parameters	ENTER Stratum A soil dry bulk density, $P_d^A$ ( $\text{g}/\text{cm}^3$ )	ENTER Stratum A soil total porosity, $n^A$ (unitless)	ENTER Stratum A soil water-filled porosity, $B_w^A$ ( $\text{cm}^3/\text{cm}^3$ )	ENTER Stratum B SCS soil type lookup parameters	ENTER Stratum B soil dry bulk density, $P_d^B$ ( $\text{g}/\text{cm}^3$ )	ENTER Stratum B soil total porosity, $n^B$ (unitless)	ENTER Stratum B soil dry bulk density, $P_d^B$ ( $\text{g}/\text{cm}^3$ )	ENTER Stratum B soil total porosity, $n^B$ (unitless)	ENTER Stratum B soil dry bulk density, $P_d^B$ ( $\text{g}/\text{cm}^3$ )
S	1.66	0.375	0.054	S	1.66	0.375	S	1.66	0.375
ENTER Enclosed space floor thickness, $L_{enc}$ (cm)	ENTER Soil-bridge pressure differential, $\Delta P$ ( $\text{g}/\text{cm}^2$ )	ENTER Enclosed space floor length, $L_B$ (cm)	ENTER Enclosed space floor width, $W_B$ (cm)	ENTER Enclosed space height, $H_B$ (cm)	ENTER Enclosed space height, $H_B$ (cm)	ENTER Enclosed space height, $H_B$ (cm)	ENTER Floor-wall seam crack width, $w$ (cm)	ENTER Floor-wall seam crack width, $w$ (cm)	ENTER Indoor air exchange rate, ER (1/h)
9	40	1060	1060	244	244	244	0.1	0.1	6
ENTER Averaging line for carcinogens, $A_{IC}$ (ys)	ENTER Averaging line for noncarcinogens, $A_{INC}$ (ys)	ENTER Exposure duration, ED (ys)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)	ENTER Exposure frequency, EF (days/yr)
70	30	30	30	30	30	30	350	350	350

END

INTERMEDIATE CALCULATIONS SHEET

	Stratum A soil air-filled porosity, $\theta_a^A$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum B soil air-filled porosity, $\theta_a^B$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum C soil air-filled porosity, $\theta_a^C$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum A effective total fluid saturation, $S_{te}$ (cm <sup>3</sup> /cm <sup>3</sup> )	Stratum A intrinsic permeability, $k_a$ (cm <sup>2</sup> )	Stratum A relative air permeability, $k_{ra}$ (cm <sup>2</sup> )	Stratum A soil effective vapor permeability, $k_v$ (cm <sup>2</sup> )	Floor- wall seam perimeter, $X_{seak}$ (cm)	Soil gas conc. ( $\mu\text{g}/\text{m}^3$ )	Bldg. ventilation rate, Quelling (cm <sup>3</sup> /s)		
Exposure duration, $\tau$ (sec)	9.46E+08	1	0.321	0.321	0.321	0.003	1.01E-07	0.998	1.01E-07	4.000	2.35E+01	4.07E+05
Source- building separation, $L_T$ (cm)												
Area of endlosed space below grade, $A_b$ (cm <sup>2</sup> )												
Crack to-total area ratio, $\eta$ (unitless)												
Convection path length, $L_p$ (cm)	2.89E+06	1.41E-04	457	7.165	5.07E-04	2.11E-02	1.78E-04	1.56E-02	0.00E+00	0.00E+00	1.86E-02	1
Area of endlosed space below grade, $A_b$ (cm <sup>2</sup> )												
Crack depth below grade, $Z_{crack}$ (cm)												
Enthalpy of vaporation at ave. soil temperature, $\Delta H_{v,ts}$ (atm·m <sup>3</sup> /mol)												
Henry's law constant at ave. soil temperature, $H_{ts}$ (atm·m <sup>3</sup> /mol)												
Henry's law constant at ave. soil temperature, $H_{ts}$ (atm·m <sup>3</sup> /mol)												
Average vapor flow rate into bldg., $Q_{bdg}$ (cm <sup>3</sup> /s)												
Crack radius, $r_{crack}$ (cm)												
Convection path length, $L_p$ (cm)												
Convective heat transfer coefficient, $h_c$ (W/m <sup>2</sup> ·K)												
Crack width, $w_{crack}$ (cm)												
Crack length, $l_{crack}$ (cm)												
Exponent of equivalent foundation Peclet number, $\exp(P_e)$												
Infinite source indoor attenuation coefficient, $\alpha$												
Reference conc., $C_{ref}$ ( $\mu\text{g}/\text{m}^3$ )												
Reference URF, $RFC$												
Reference conc., $C_{building}$ ( $\mu\text{g}/\text{m}^3$ )												
Reference URF, $RFC$												
Reference conc., $C_{out}$ ( $\mu\text{g}/\text{m}^3$ )												
Reference URF, $RFC$												
Reference conc., $C_{in}$ ( $\mu\text{g}/\text{m}^3$ )												
Reference URF, $RFC$												
Reference conc., $C_{out}$ ( $\mu\text{g}/\text{m}^3$ )												
Reference URF, $RFC$												
Reference conc., $C_{in}$ ( $\mu\text{g}/\text{m}^3$ )												
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Reference conc., $C_{out}$ ( $\mu\text{g}/\text{m}^3$ )												
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Reference URF, $RFC$												
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Reference URF, $RFC$												
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Reference conc., $C_{out}$ ( $\mu\text{g}/\text{m}^3$ )												
Reference URF, $RFC$												
Reference conc., $C_{in}$ ( $\mu\text{g}/\text{m}^3$ )												
Reference URF, $RFC$		</td										



N

**LEGEND**

Sample ID	CB-5
Depth	TPPH
feet	mg/kg
Depth	B
feet	mg/kg
Depth	MTBE
feet	mg/kg

Legend entries:

- CB-5 Confirmation Boring with Adsorbed-Phase Petroleum Hydrocarbon Concentrations (mg/kg) at Depth (feet)
- SG-4 Soil Gas Probe
- SG-2 Soil Gas Probe Cluster
- VW-3B/C Vapor Well
- MW-3 Abandoned Monitoring Well
- E-2 Abandoned Vapor Well
- MW-9 Monitoring Well
- B-6 Boring
- Dispenser Island
- Canopy Support

**NOTES:**

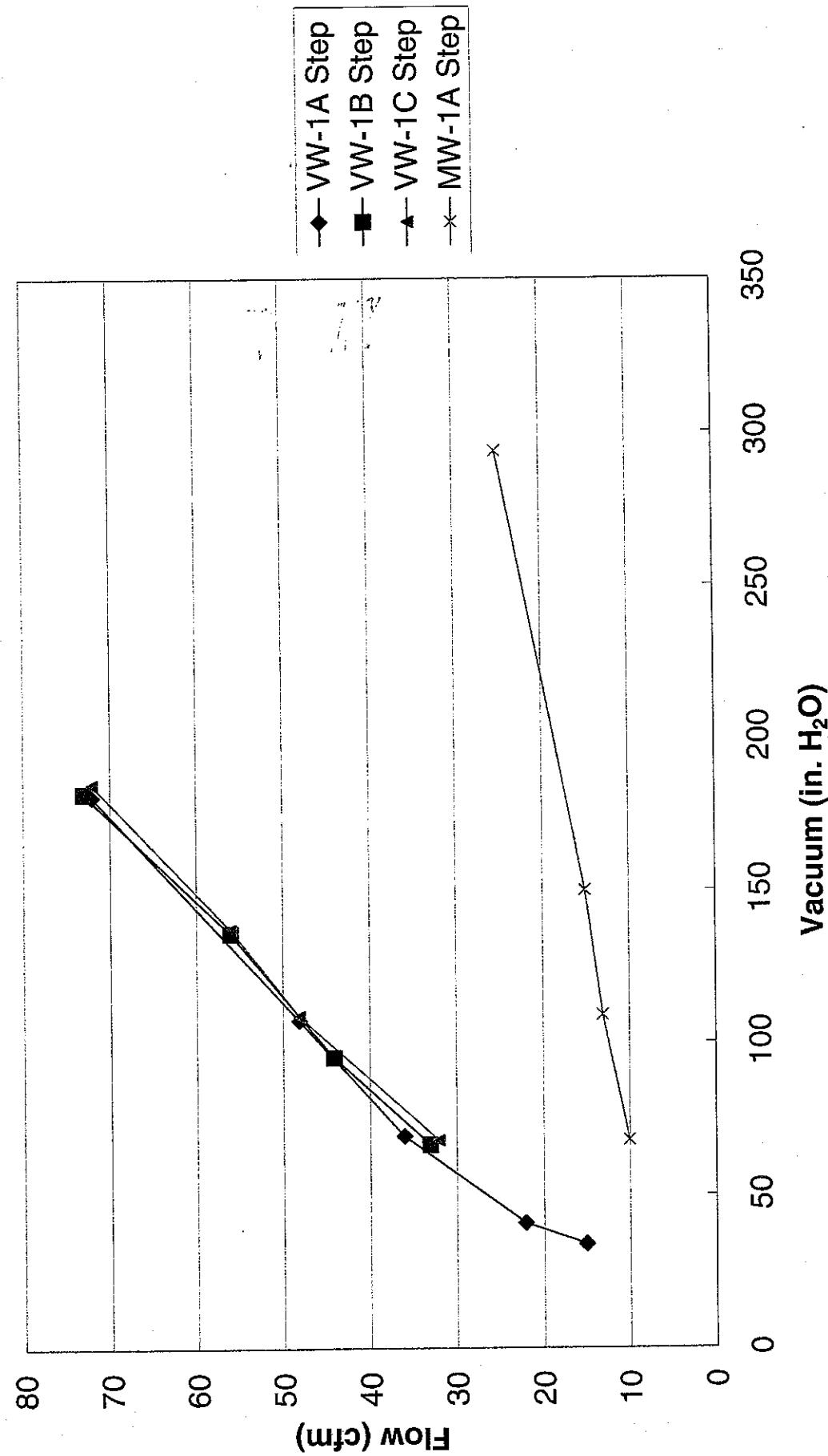
TPPH = total purgeable petroleum hydrocarbons.  
 B = benzene. MTBE = methyl tertiary butyl ether.  
 mg/kg = milligrams per kilogram. ND = not detected at limit indicated. J = estimated concentration, value is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL). Depths are in feet below grade. UST = underground storage tank. Results obtained using EPA Method 8260.

**SOUTH CENTRAL AVENUE****CONFIRMATION BORING SOIL SAMPLE RESULTS**

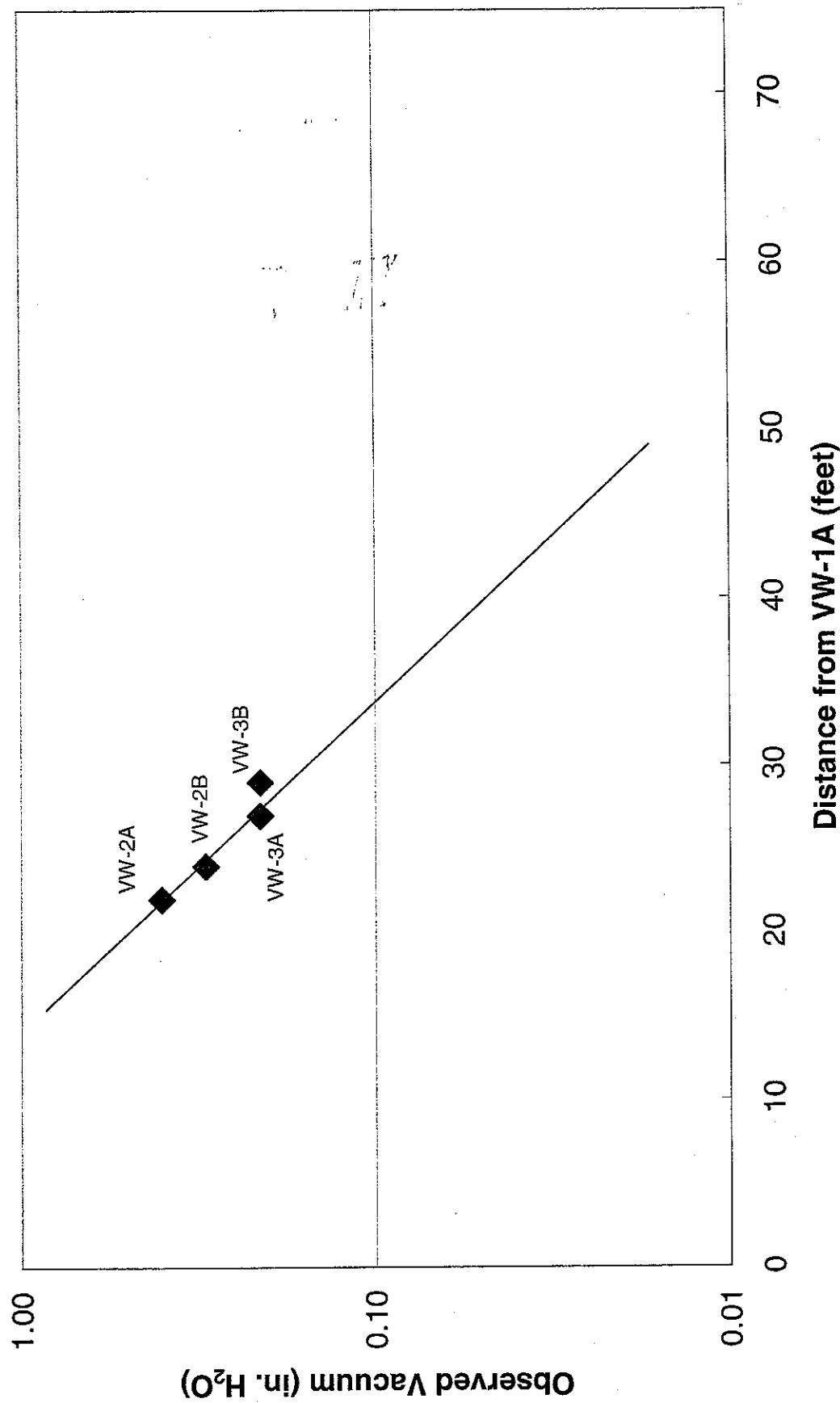
Former 76 Station 0353  
 200 South Central Avenue  
 Glendale, California

**TRC****FIGURE 3**

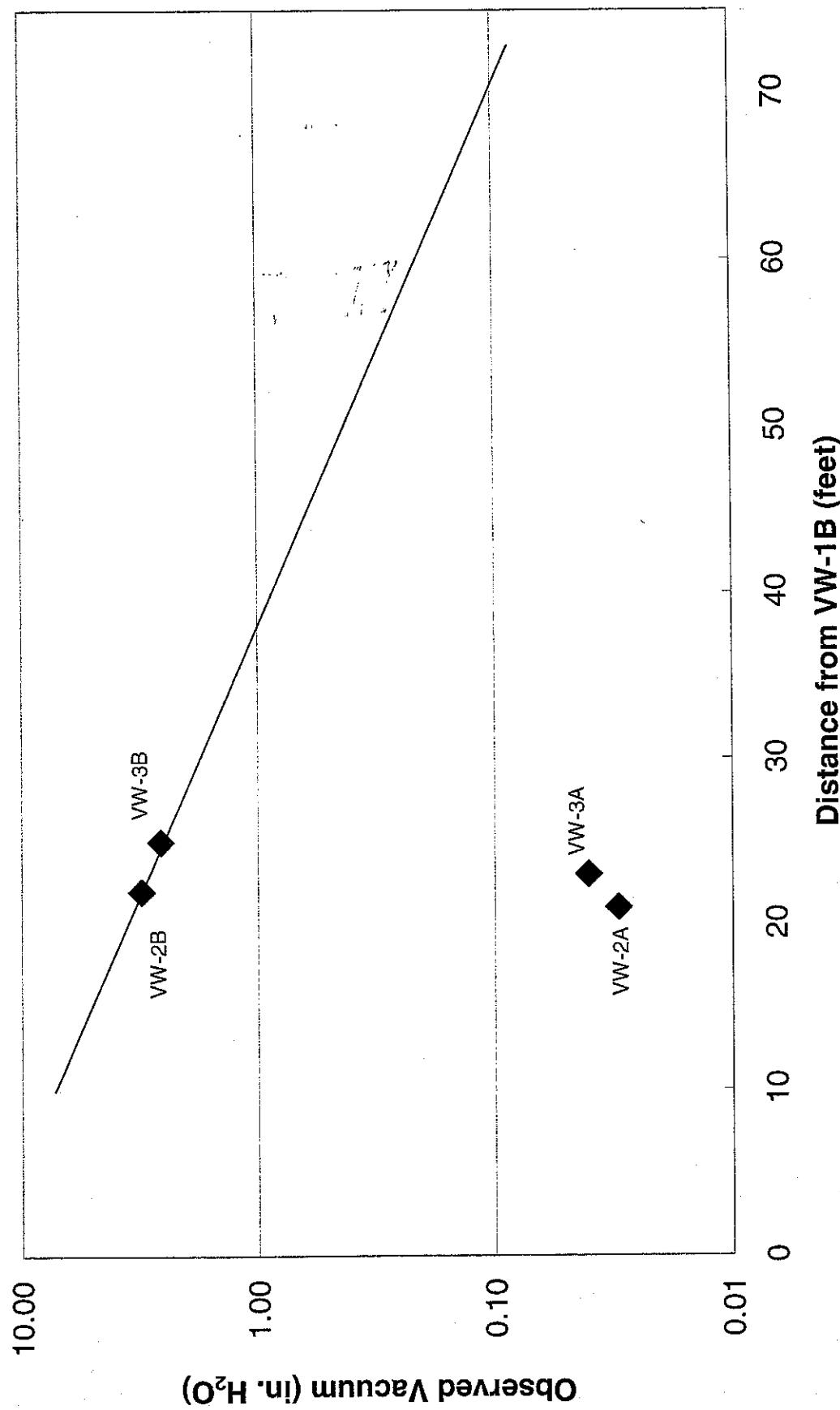
**Chart 1**  
**Vapor Extraction Step Test Data**  
Former 76 Station 0353  
Glendale, CA



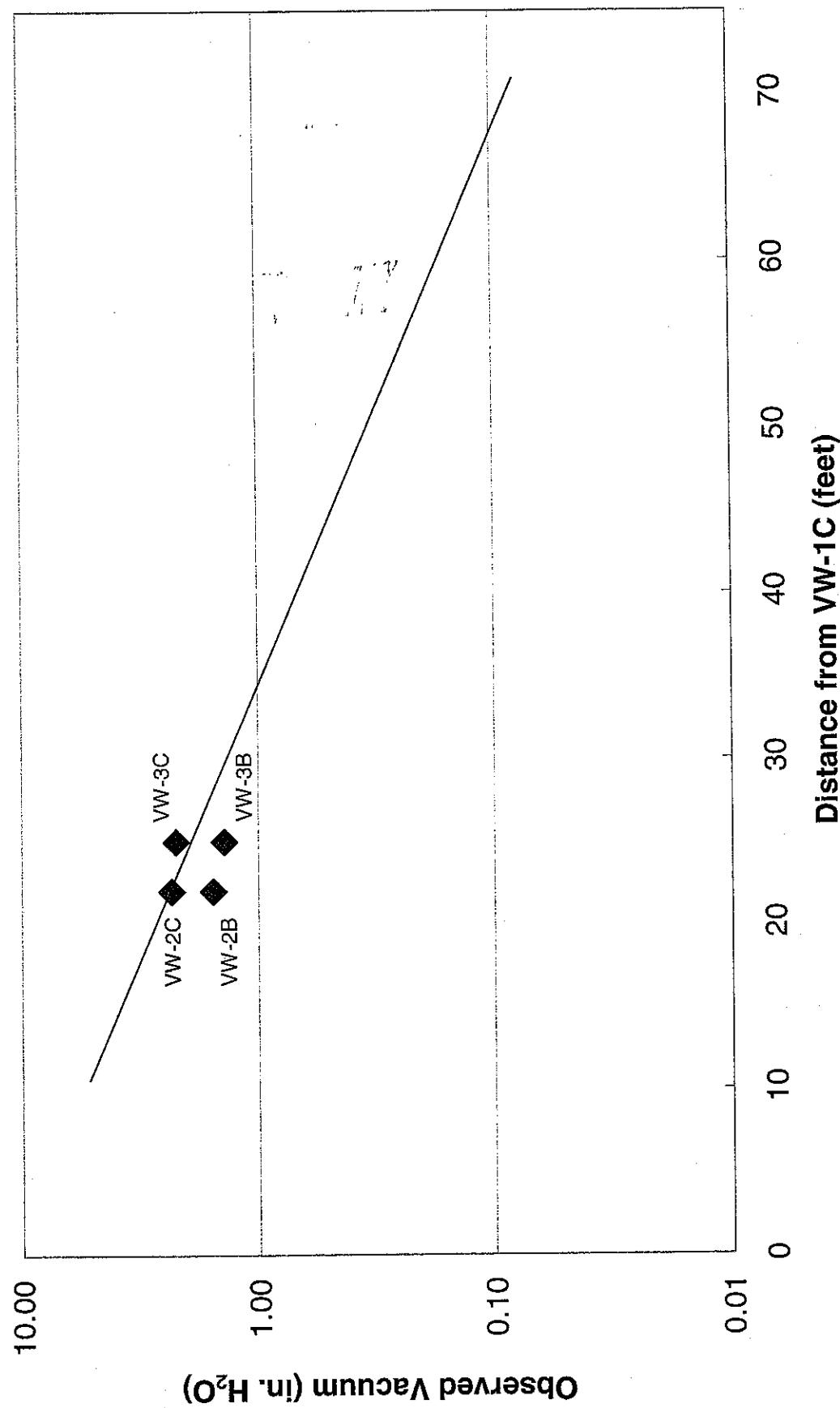
**Chart 2**  
**Vapor Extraction Radius of Influence-Well VW-1A**  
Former 76 Station 0353  
Glendale, CA



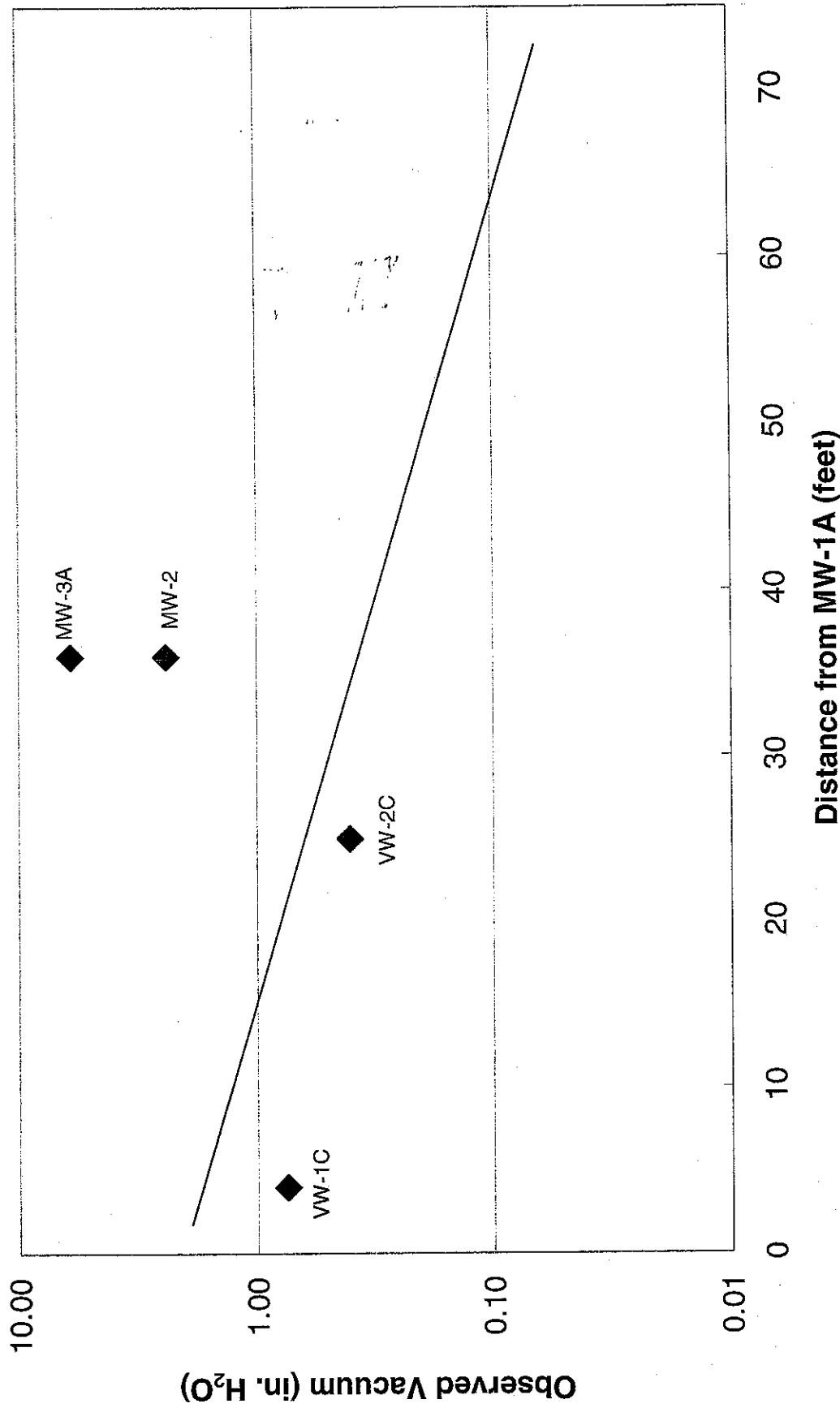
**Chart 3**  
**Vapor Extraction Radius of Influence-Well VW-1B**  
Former 76 Station 0353  
Glendale, CA



**Chart 4**  
**Vapor Extraction Radius of Influence-Well VW-1C**  
Former 76 Station 0353  
Glendale, CA



**Chart 5**  
**Vapor Extraction Radius of Influence-MW-1A**  
Former 76 Station 0353  
Glendale, CA



**TABLE 1**  
**VAPOR EXTRACTION DATA**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date and Time	Run Time (hours)	Vacuum (in. of Hg)	Total Well Flow (scfm)	Total Well Influent Concentration	Total System Flow (scfm)	System Influent Concentration (ppmv)	Effluent Concentration (ppmv)	Hydrocarbon (HC) Recovery (%)	Pounds (Gal.)	Extraction Wells Utilized
09/26/05 11:30	0.0	2.7	15	140	136	30		0.00	0.00	VW-1A
09/26/05 11:45	0.3	2.3	15	150	139	40		0.02	0.00	VW-1A
09/26/05 12:00	0.5	3.0	22	140	129	30	0	0.02	0.00	VW-1A
09/26/05 12:15	0.8	3.0	22	150	132	50		0.02	0.00	VW-1A
09/26/05 12:20	0.8	5.1	36	160	118	70		0.01	0.00	VW-1A
09/26/05 12:35	1.1	5.1	36	150	118	80		0.03	0.00	VW-1A
09/26/05 13:00	1.5	5.1	36	150	118	70		0.05	0.01	VW-1A
09/26/05 13:15	1.8	5.0	36	160	118	80		0.03	0.00	VW-1A
09/26/05 13:17	1.8	8.0	48	160	101	110		0.00	0.00	VW-1A
09/26/05 13:45	2.3	7.8	48	140	101	100		0.07	0.01	VW-1A
09/26/05 14:05	2.6	8.0	48	160	103	100		0.05	0.01	VW-1A
09/26/05 14:15	2.8	7.8	48	150	103	90		0.02	0.00	VW-1A
09/26/05 14:20	2.8	13.5			69	150		0.01	0.00	VW-1A
09/26/05 14:50	3.3	13.2			71	170		0.08	0.01	VW-1A
09/26/05 15:00	3.5	13.2			70	190		0.03	0.00	VW-1A
09/26/05 15:10	3.7	13.2			71	190		0.03	0.00	VW-1A
09/26/05 16:30	5.0	4.9	33	390	123	140		0.29	0.05	VW-1B
09/26/05 16:40	5.2	4.9	32		120			0.29	0.05	VW-1B
09/26/05 16:45	5.3	4.9	32		123			0.29	0.05	VW-1B
09/26/05 16:50	5.3	4.8	33		123			0.29	0.05	VW-1B
09/26/05 16:55	5.4	4.8	33		123			0.29	0.05	VW-1B
09/26/05 17:00	5.5	4.9	33		123			0.29	0.05	VW-1B
09/26/05 17:10	5.7	7.0	45	610	113	300		0.24	0.04	VW-1B
09/26/05 17:25	5.9	7.0			113			0.24	0.04	VW-1B
09/26/05 17:40	6.2	7.0	43		117			0.24	0.04	VW-1B
09/26/05 17:55	6.4	7.0			117			0.24	0.04	VW-1B
09/26/05 18:10	6.7	7.0	43		117			0.24	0.04	VW-1B
09/26/05 18:15	6.8	10.0	54	580	97	390		0.53	0.09	VW-1B
09/26/05 18:30	7.0	10.0	56		96			0.53	0.09	VW-1B
09/26/05 18:45	7.3	10.0	56		95			0.53	0.09	VW-1B
09/26/05 18:50	7.3	13.3			73	530		0.31	0.05	VW-1B
09/26/05 19:05	7.6	13.5			73			0.31	0.05	VW-1B
09/26/05 19:20	7.8	13.5			73			0.31	0.05	VW-1B
09/26/05 20:20	8.8	5.0	29	40	123	30		0.56	0.09	VW-1C

**TABLE 1**  
**VAPOR EXTRACTION DATA**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date and Time	Run Time (hours)	Vacuum (in. of Hg)	Total Well Flow (scfm)	Total Well Ambient Concentration (scfm)	Total System Flow (scfm)	System Concentration (ppmv)	Effluent Concentration (ppmv)	Hydrocarbon (HC) Recovery (%)	Hydrocarbon (HC) Recovery (Pounds)	Extraction Wells Utilized
09/26/05 20:30	9.0	5.1	33		122			0.56	0.09	VW-1C
09/26/05 20:40	9.2	5.0	32		123			0.56	0.09	VW-1C
09/26/05 20:50	9.3	5.0	33		123			0.56	0.09	VW-1C
09/26/05 20:55	9.4	7.9	45	20	103	20		0.02	0.00	VW-1C
09/26/05 21:05	9.6	8.0	48		105			0.02	0.00	VW-1C
09/26/05 21:15	9.8	8.0	48		105			0.02	0.00	VW-1C
09/26/05 21:25	9.9	8.0	48		102			0.02	0.00	VW-1C
09/26/05 21:30	10.0	10.0	56	40	91	30		0.02	0.00	VW-1C
09/26/05 21:40	10.2	10.1	56		94			0.02	0.00	VW-1C
09/26/05 21:50	10.3	13.6			71	40		0.01	0.00	VW-1C
09/26/05 22:00	10.5	13.6			72			0.01	0.00	VW-1C
09/26/05 22:15	10.8	13.6			73			0.01	0.00	VW-1C
09/26/05 23:00	11.5	5.0	10	10	134	20		0.05	0.01	MW-1A
09/26/05 23:10	11.7	5.0	8		136			0.05	0.01	MW-1A
09/26/05 23:20	11.8	5.0	10		134			0.05	0.01	MW-1A
09/26/05 23:30	12.0	8.0	13	10	106	10		0.01	0.00	MW-1A
09/26/05 23:40	12.2	8.0	13		108			0.01	0.00	MW-1A
09/26/05 23:50	12.3	8.0	13		108			0.01	0.00	MW-1A
09/27/05 0:00	12.5	11.0	15	0	102	10		0.01	0.00	MW-1A
09/27/05 0:10	12.7	11.0	15		103			0.01	0.00	MW-1A
09/27/05 0:20	12.8	11.0	15		103			0.01	0.00	MW-1A
09/27/05 0:30	13.0	21.5			27	10		0.00	0.00	MW-1A
09/27/05 0:40	13.2	21.8			23	20		0.00	0.00	MW-1A
09/27/05 0:50	13.3	21.8			23	20		0.00	0.00	MW-1A
09/27/05 1:30	14.0	13.5			68	110		0.03	0.00	VW-1A
09/27/05 1:40	14.2	13.4			71	130		0.02	0.00	VW-1A
09/27/05 1:50	14.3	13.3			72	150		0.02	0.00	VW-1A
09/27/05 2:00	14.5	13.3			72	160		0.03	0.00	VW-1A
09/27/05 2:15	14.8	13.4			73	170		0.04	0.01	VW-1A
09/27/05 2:30	15.0	13.3			72	170		0.04	0.01	VW-1A
09/27/05 2:45	15.3	13.4			73	180		0.04	0.01	VW-1A
09/27/05 3:00	15.5	13.4			73	180		0.04	0.01	VW-1A
09/27/05 3:15	15.8	13.4			73	180		0.04	0.01	VW-1A
09/27/05 3:30	16.0	13.4			73	190		0.05	0.01	VW-1A
09/27/05 4:10	16.7	13.8			68	670		0.28	0.04	VW-1B
09/27/05 4:20	16.8	13.6			71	630		0.10	0.02	VW-1B

**TABLE 1**  
**VAPOR EXTRACTION DATA**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date and Time	Run Time (hours)	Total Well Vacuum (in. of Hg)	Total Well Flow (scfm)	Influent Concentration (ppm)	Total System Flow (scfm)	Effluent Concentration (ppm)	Effluent Recovery (ppm)	Hydrocarbon (HC) Recovery (Gal)	Extraction Wells Utilized
09/27/05 4:30	17.0	13.8			70	600		0.10	0.02
09/27/05 4:40	17.2	13.8			71	590		0.10	0.02
09/27/05 4:55	17.4	13.6			72	560		0.14	0.02
09/27/05 5:10	17.7	13.8			71	530		0.13	0.02
09/27/05 5:25	17.9	13.8			72	500		0.13	0.02
09/27/05 5:40	18.2	14.0			70	480		0.12	0.02
09/27/05 5:55	18.4	13.9			69	460		0.11	0.02
09/27/05 6:10	18.7	13.9			69	460		0.11	0.02
09/27/05 6:40	19.2	13.5			69	30		0.12	0.02
09/27/05 6:50	19.3	13.6			69	30		0.00	0.00
09/27/05 7:00	19.5	13.6			69	30		0.00	0.00
09/27/05 7:10	19.7	13.6			69	40		0.01	0.00
09/27/05 7:25	19.9	13.6			71	40		0.01	0.00
09/27/05 7:40	20.2	13.6			74	50		0.01	0.00
09/27/05 7:55	20.4	13.6			74	50		0.01	0.00
09/27/05 8:10	20.7	13.5			72	50		0.01	0.00
09/27/05 8:25	20.9	13.5			72	50		0.01	0.00
09/27/05 8:40	21.2	13.4			72	50		0.01	0.00
09/27/05 9:20	21.8	20.9			30	30		0.02	0.00
09/27/05 9:30	22.0	20.6			30	30		0.00	MW-1A
09/27/05 9:40	22.2	20.7			30	30		0.00	MW-1A
09/27/05 9:50	22.3	20.4			29	40		0.00	MW-1A
09/27/05 10:05	22.6	20.1			29	40		0.00	MW-1A
09/27/05 10:20	22.8	19.8			28	40		0.00	MW-1A
09/27/05 10:35	23.1	19.6			28	40		0.00	MW-1A
09/27/05 10:50	23.3	19.6			28	40		0.00	MW-1A
09/27/05 11:05	23.6	19.6			28	40		0.00	MW-1A
09/27/05 11:20	23.8	19.5			28	40		0.00	VWN-1A, VWN-2A, VWN-3A
09/27/05 11:45	24.3	5.0			123	70		0.02	0.00
09/27/05 12:15	24.8	5.0			123	80		0.06	0.01
09/27/05 12:45	25.3	5.1			121	90		0.07	0.01
09/27/05 13:15	25.8	5.0			120	90	0	0.07	0.01
09/27/05 13:45	26.3	5.1			120	90		0.07	0.01
09/27/05 14:15	26.8	5.0			120	90		0.07	VWN-1A, VWN-2A, VWN-3A
09/27/05 14:45	27.3	3.0			142	320		0.18	0.03
09/27/05 15:15	27.8	3.0			142	280		0.29	0.05

**TABLE 1**  
**VAPOR EXTRACTION DATA**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date and Time	Run Time (hours)	Total Well Flow (ml/g)	Total Well Influent Concentration (ppm)	System Flow (cc/min)	Effluent Concentration (ppm)	Hydrocarbon Recovery (%)	Extraction Wells Utilized
09/27/05 15:45	28.3	3.0		139	260	0.26	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 16:15	28.8	3.0		137	260	0.24	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 16:45	29.3	3.0		137	240	0.23	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 17:15	29.8	3.0		139	240	0.23	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 17:45	30.3	3.0		137	230	0.22	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 18:15	30.8	3.1		137	220	0.21	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 18:45	31.3	3.2		137	220	0.21	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 19:15	31.8	3.2		137	220	0.21	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 19:45	32.3	3.3		137	200	0.20	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 20:15	32.8	3.5		137	210	0.19	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 20:45	33.3	3.1		137	210	0.20	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 21:15	33.8	3.2		136	200	0.19	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 21:45	34.3	3.3		134	210	0.19	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 22:15	34.8	3.6		140	210	0.20	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 22:45	35.3	3.5		141	210	0.20	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 23:15	35.8	3.6		140	200	0.20	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/27/05 23:45	36.3	3.6		140	200	0.19	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 0:15	36.8	3.5		139	190	0.19	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 0:45	37.3	3.5		139	200	0.18	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 1:15	37.8	3.6		140	190	0.19	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 1:45	38.3	3.5		139	180	0.18	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 2:15	38.8	3.5		139	190	0.18	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 2:45	39.3	3.4		141	190	0.18	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 3:15	39.8	3.6		139	180	0.18	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 3:45	40.3	3.5		141	180	0.17	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 4:15	40.8	3.4		141	170	0.17	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 4:45	41.3	3.5		140	180	0.17	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 5:15	41.8	3.5		139	180	0.17	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 5:45	42.3	3.4		140	180	0.17	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 6:15	42.8	4.0		136	180	0.17	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 6:45	43.3	3.6		139	170	0.16	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 7:15	43.8	3.7		138	140	0.15	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 7:45	44.3	4.0		142	160	0.14	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 8:15	44.8	4.0		141	170	0.16	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 8:45	45.3	3.0		153	180	0.18	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 9:15	45.8	3.0		139	180	0.18	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A

**TABLE 1**  
**VAPOR EXTRACTION DATA**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date and Time	Run Time (min)	Vacuum (in. of Hg)	Total Well Flow (cm)	Total Well Influent Concentration (ppm)	System Flow (cm)	System Concentration (ppm)	Effluent Concentration (ppm)	Hydrocarbon (HC) Recovery (%)	Extraction Wells Utilized
09/28/05 9:45	46.3	3.0		139	180		0.17	0.03	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 10:15	46.8	3.0		138	170		0.16	0.03	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 10:45	47.3	2.9		139	150		0.15	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 11:15	47.8	2.9		139	160		0.15	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 11:45	48.3	2.9		139	160		0.15	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 12:15	48.8	2.9		139	160		0.15	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3A
09/28/05 12:45	49.3	3.0		135	170		0.15	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 13:15	49.8	3.0		132	170		0.15	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 13:45	50.3	3.0		130	160		0.15	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 14:15	50.8	3.0		130	160		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 14:45	51.3	3.0		130	160		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 15:15	51.8	3.0		130	160		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 15:45	52.3	3.0		130	150		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 16:15	52.8	3.0		130	150		0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 16:45	53.3	2.9		130	150		0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 17:15	53.8	3.0		132	150		0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 17:45	54.3	2.9		131	150		0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 18:15	54.8	3.0		133	160		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 18:45	55.3	3.0		134	150		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 19:15	55.8	3.0		134	160		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 19:45	56.3	3.0		136	150		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 20:15	56.8	2.9		136	150		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 20:45	57.3	2.9		136	160		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 21:15	57.8	3.0		134	150		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 21:45	58.3	3.0		134	160		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 22:15	58.8	2.9		136	150		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 22:45	59.3	3.0		136	160		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 23:15	59.8	3.0		136	160		0.15	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/28/05 23:45	60.3	3.0		134	150		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 0:15	60.8	2.9		136	140		0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 0:45	61.3	3.0		135	150		0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 1:15	61.8	2.9		136	150		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 1:45	62.3	3.0		134	160		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 2:15	62.8	3.0		135	140		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 2:45	63.3	2.9		136	150		0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 3:15	63.8	2.9		136	160		0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B

**TABLE 1**  
**VAPOR EXTRACTION DATA**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date and Time	Run Time (hours)	Vacuum (in. Hg)	Total Well Fluid (sdm)	Total Well Influent Concentration (ppm)	System Flow (sdm)	System Influent Concentration (ppm)	Effluent Concentration (ppm)	Hydrocarbon (HC) Recovery (%)	Extraction Wells Utilized
09/29/05 21:45	82.3	3.0			132	140	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 22:15	82.8	3.0			132	150	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 22:45	83.3	3.0			132	140	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 23:15	83.8	3.0			132	160	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/29/05 23:45	84.3	3.0			132	150	0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 0:15	84.8	3.0			132	150	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 0:45	85.3	3.0			133	150	0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 1:15	85.8	2.9			132	140	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 1:45	86.3	2.9			133	140	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 2:15	86.8	3.0			132	150	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 2:45	87.3	3.0			132	160	0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 3:15	87.8	3.0			132	150	0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 3:45	88.3	2.9			133	150	0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 4:15	88.8	3.0			132	150	0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 4:45	89.3	3.0			132	160	0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 5:15	89.8	3.0			132	150	0.14	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 5:45	90.3	3.0			132	150	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 6:15	90.8	3.0			132	140	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 6:45	91.3	3.0			132	120	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 7:15	91.8	3.0			133	120	0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 7:45	92.3	3.0			133	130	0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 8:15	92.8	3.0			133	130	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 8:45	93.3	3.0			134	130	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 9:15	93.8	3.0			134	130	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 9:45	94.3	3.0			134	130	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 10:15	94.8	3.0			134	130	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 10:45	95.3	3.0			134	140	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 11:15	95.8	3.0			134	140	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 11:45	96.3	3.0			134	140	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 12:15	96.8	3.0			134	140	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 12:45	97.3	3.0			134	140	0.13	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 13:15	97.8	3.0			134	130	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 13:45	98.3	3.0			134	130	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 14:15	98.8	2.9			133	130	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 14:45	99.3	2.9			133	130	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 15:15	99.8	2.9			132	130	0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B

**TABLE 1**  
**VAPOR EXTRACTION DATA**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date and Time	Run Time (hours)	Vacuum (in Hg)	Total Well Flow (scfm)	Total Well Influent Concentration (mg/l)	System Flow (scfm)	System Concentration (ppmv)	Effluent Concentration (ppmv)	Hydrocarbon (HC) Recovery (%)	Hydrocarbon (HC) Recovery (Pounds)	Extraction Wells Utilized
09/30/05 15:45	100.3	2.9			132	130		0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 16:15	100.8	2.9			132	130		0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 16:45	101.3	2.9			132	130		0.12	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 17:15	101.8	3.0			126	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 17:45	102.3	3.0			127	130		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 18:15	102.8	3.0			132	130		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 18:45	103.3	3.0			132	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 19:15	103.8	2.9			132	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 19:45	104.3	3.0			133	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 20:15	104.8	3.0			132	130		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 20:45	105.3	3.0			133	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 21:15	105.8	2.9			132	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 21:45	106.3	3.1			132	110		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 22:15	106.8	3.0			133	120		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 22:45	107.3	3.1			132	110		0.10	0.02	VW-7A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 23:15	107.8	3.0			133	120		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
09/30/05 23:45	108.3	3.0			132	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 0:15	108.8	3.1			132	110		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 0:45	109.3	3.0			132	110		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 1:15	109.8	3.0			133	120		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 1:45	110.3	3.0			132	110		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 2:15	110.8	3.1			133	120		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 2:45	111.3	3.1			133	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 3:15	111.8	3.0			132	110		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 3:45	112.3	3.1			133	120		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 4:15	112.8	3.0			132	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 4:45	113.3	3.0			132	110		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 5:15	113.8	3.1			133	120		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 5:45	114.3	3.1			134	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 7:15	115.8	3.1			132	110		0.31	0.05	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 7:45	116.3	3.0			134	120		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 8:15	116.8	2.9			134	110		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 8:45	117.3	2.9			134	120		0.10	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 9:15	117.8	2.9			134	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 9:45	118.3	2.9			134	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 10:15	118.8	2.9			134	120		0.11	0.02	VW-1A, VW-1B, VW-2A, VW-2B, VW-3B

**TABLE 1**  
**VAPOR EXTRACTION DATA**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date and Time	Run Time (hours)	Total Well Vacuum (in of Hg)	Total Well Flow (scfm)	Total Well Influent Concentration (ppm)	System Flow (scfm)	System Influent Concentration (ppm)	Effluent Concentration (ppm)	Hydrocarbon Recovered	Gallons	Extraction Wells Utilized
10/01/05 10:45	119.3	2.9		134	120		0.11	0.02		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/01/05 11:15	119.8	2.9		134	120		0.11	0.02		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/02/05 10:45	143.3	3.0		134	130		5.36	0.86		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/03/05 10:45	167.3	3.2		137	140		5.98	0.96		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/04/05 10:45	191.3	3.2		139	120		5.86	0.94		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/05/05 8:00	212.5	2.8		141	80		4.05	0.65		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/05/05 8:15	212.8	2.8		141	80		0.04	0.01		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/06/05 9:00	237.5	2.9		143	30		2.63	0.42		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/06/05 9:15	237.8	2.9		143	20		0.01	0.00		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/07/05 11:30	264.0	2.6		145	170		4.89	0.78		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/07/05 11:45	264.3	2.6		145	170		0.08	0.01		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/08/05 10:30	287.0	2.6		143	50		4.91	0.79		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/09/05 11:30	312.0	2.6		145	80		3.19	0.51		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/10/05 11:00	335.5	2.6		143	50		2.99	0.48		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/11/05 5:30	354.0	2.6		143	80		2.34	0.37		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/12/05 7:00	379.5	2.8		147	40		3.02	0.48		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/13/05 7:30	404.0	2.6		142	40		1.93	0.31		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/14/05 8:00	428.5	2.6		139	50		2.11	0.34		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/15/05 7:00	451.5	2.5		142	30		1.76	0.28		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/16/05 7:30	476.0	2.3		139	20		1.17	0.19		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/17/05 9:00	501.5	2.3		142	30		1.22	0.20		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/18/05 10:00	526.5	2.5		136	30		1.42	0.23		VW-1A, VW-1B, VW-2A, VW-2B, VW-3B
10/19/05 10:30	551.0	2.3		110	30		1.23	0.20		VW-1B, VW-1C, VW-2B, VW-2C, VW-3C
10/20/05 11:00	575.5	2.6		105	20		0.90	0.14		VW-1B, VW-1C, VW-2B, VW-3B, VW-3C
10/20/05 11:30	576.0	3.0		110	40		0.02	0.00		MW-1A, MW-3A, VW-1B, VW-2B
10/21/05 8:00	596.5	3.0		110	20		0.92	0.15		MW-1A, MW-3A, VW-1B, VW-2B
10/22/05 6:00	618.5	2.8		120	30		0.86	0.14		VW-1B, VW-2B, VW-3B
10/23/05 7:00	643.5	3.0		108	20		0.97	0.16		VW-1B, VW-2B, VW-3B
10/24/05 9:30	670.0	4.0		103	50		1.33	0.21		VW-1B, VW-2B, VW-3B
10/25/05 10:30	695.0	4.0		95	40		1.52	0.24		VW-1B, VW-2B, VW-3B
10/26/05 11:30	720.0	3.8		105	40		1.36	0.22		VW-1B, VW-2B, VW-3B
10/27/05 10:00	742.5	4.0		103	40		1.27	0.20		VW-1B, VW-2B, VW-3B

**TABLE 1**  
**VAPOR EXTRACTION DATA**  
 Former 76 Station 0353  
 Glendale, CA  
 9/26/2005 through 10/27/2006

Date and Time	Run Time (hours)	Vacuum (in. of Hg)	Total Well Flow (st.m)	Total Well Influent Concentration	System Flow (scfm)	System Influent Concentration (ppm)	Effluent Concentration (ppm)	Hydrocarbon Recovery (%)	Pounds Gal.	Extraction Wells Utilized
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in. of Hg = inches of Mercury

Gal. = gallons

-HC = hydrocarbon(s)

HC recovered in gallons = (delta time in hours) x (average flow in scfm) x (average concentration in ppmv) x (1/1,000,000) x (86 lb/379 cuft) x (60min/hr) x (1 gallon/6.2475 lb)

**TABLE 2**  
**WELL PARAMETERS**  
 Former 76 Station 0353

Former 76 Station 03353

Glendale, CA

9/26/2005 through 10/27/2005

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	MW-1A			MW-3A			VW-1A					
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmV)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmV)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmV)	Flow Rate (scfm)
9/27/2005	8:40	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	9:20	1	20.9	30	30	-	-	-	-	-	-	-	-
9/27/2005	10:20	1	19.8	40	28	-	-	-	-	-	-	-	-
9/27/2005	11:20	1	19.5	40	28	-	-	-	-	-	-	-	-
9/27/2005	12:15	-	-	-	-	-	-	-	-	1	13.1	150	76
9/27/2005	14:45	-	-	-	-	-	-	-	-	1	13.0	170	85
9/27/2005	15:45	-	-	-	-	-	-	-	-	1	13.1	170	83
9/27/2005	16:45	-	-	-	-	-	-	-	-	1	13.1	180	81
9/27/2005	17:45	-	-	-	-	-	-	-	-	1	13.1	150	81
9/27/2005	18:45	-	-	-	-	-	-	-	-	1	13.3	160	78
9/27/2005	20:15	-	-	-	-	-	-	-	-	1	13.5	160	78
9/27/2005	20:45	-	-	-	-	-	-	-	-	1	13.5	170	76
9/27/2005	22:45	-	-	-	-	-	-	-	-	1	13.4	160	78
9/27/2005	23:45	-	-	-	-	-	-	-	-	1	13.5	170	78
9/28/2005	0:45	-	-	-	-	-	-	-	-	1	13.4	170	76
9/28/2005	1:45	-	-	-	-	-	-	-	-	1	13.7	160	76
9/28/2005	2:45	-	-	-	-	-	-	-	-	1	13.5	160	78
9/28/2005	3:45	-	-	-	-	-	-	-	-	1	13.3	170	78
9/28/2005	4:45	-	-	-	-	-	-	-	-	1	13.5	160	76
9/28/2005	5:45	-	-	-	-	-	-	-	-	1	13.6	170	76
9/28/2005	6:45	-	-	-	-	-	-	-	-	1	13.5	130	74
9/28/2005	7:45	-	-	-	-	-	-	-	-	1	13.2	130	107
9/28/2005	8:45	-	-	-	-	-	-	-	-	1	13.0	130	107
9/28/2005	9:45	-	-	-	-	-	-	-	-	1	13.3	140	78
9/28/2005	10:45	-	-	-	-	-	-	-	-	1	13.5	170	71

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA

9/26/2005 through 10/27/2005

Date	Time	MW-1A				MW-3A				VW-1A			
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)
9/28/2005	12:45	--	--	--	--	--	--	--	--	1	13.7	170	71
9/28/2005	13:45	--	--	--	--	--	--	--	--	1	13.7	160	69
9/28/2005	14:45	--	--	--	--	--	--	--	--	1	13.7	160	69
9/28/2005	15:45	--	--	--	--	--	--	--	--	1	13.6	150	69
9/28/2005	16:45	--	--	--	--	--	--	--	--	1	13.5	160	69
9/28/2005	17:45	--	--	--	--	--	--	--	--	1	13.6	150	69
9/28/2005	18:45	--	--	--	--	--	--	--	--	1	13.5	160	70
9/28/2005	19:45	--	--	--	--	--	--	--	--	1	13.5	150	73
9/28/2005	20:45	--	--	--	--	--	--	--	--	1	13.8	150	69
9/28/2005	21:45	--	--	--	--	--	--	--	--	1	13.5	160	73
9/28/2005	22:45	--	--	--	--	--	--	--	--	1	13.5	150	73
9/28/2005	23:45	--	--	--	--	--	--	--	--	1	13.6	150	71
9/29/2005	0:45	--	--	--	--	--	--	--	--	1	13.5	160	72
9/29/2005	1:45	--	--	--	--	--	--	--	--	1	13.6	160	73
9/29/2005	2:45	--	--	--	--	--	--	--	--	1	13.5	150	71
9/29/2005	3:45	--	--	--	--	--	--	--	--	1	13.6	160	72
9/29/2005	4:45	--	--	--	--	--	--	--	--	1	13.6	160	73
9/29/2005	5:45	--	--	--	--	--	--	--	--	1	13.5	150	72
9/29/2005	6:45	--	--	--	--	--	--	--	--	1	13.5	150	69
9/29/2005	7:45	--	--	--	--	--	--	--	--	1	13.6	150	71
9/29/2005	8:45	--	--	--	--	--	--	--	--	1	13.7	180	71
9/29/2005	9:45	--	--	--	--	--	--	--	--	1	13.7	180	74
9/29/2005	10:45	--	--	--	--	--	--	--	--	1	13.7	160	74
9/29/2005	11:45	--	--	--	--	--	--	--	--	1	13.7	160	74
9/29/2005	12:45	--	--	--	--	--	--	--	--	1	13.7	160	74
9/29/2005	13:45	--	--	--	--	--	--	--	--	1	13.6	150	71

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	MW-1A				MW-3A				VW-1A			
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmV)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmV)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmV)	Flow Rate (scfm)
9/29/2005	14:45	-	-	-	-	-	-	-	-	1	13.6	150	71
9/29/2005	15:45	-	-	-	-	-	-	-	-	1	13.6	150	71
9/29/2005	16:45	-	-	-	-	-	-	-	-	1	13.6	150	71
9/29/2005	17:45	-	-	-	-	-	-	-	-	1	13.5	150	71
9/29/2005	18:45	-	-	-	-	-	-	-	-	1	13.5	160	71
9/29/2005	19:45	-	-	-	-	-	-	-	-	1	13.6	150	71
9/29/2005	20:45	-	-	-	-	-	-	-	-	1	13.4	160	73
9/29/2005	21:45	-	-	-	-	-	-	-	-	1	13.5	150	71
9/29/2005	22:45	-	-	-	-	-	-	-	-	1	13.6	150	71
9/29/2005	23:45	-	-	-	-	-	-	-	-	1	13.6	160	71
9/30/2005	0:45	-	-	-	-	-	-	-	-	1	13.4	150	71
9/30/2005	1:45	-	-	-	-	-	-	-	-	1	13.4	150	71
9/30/2005	2:45	-	-	-	-	-	-	-	-	1	13.5	160	73
9/30/2005	3:45	-	-	-	-	-	-	-	-	1	13.5	150	71
9/30/2005	4:45	-	-	-	-	-	-	-	-	1	13.6	150	71
9/30/2005	5:45	-	-	-	-	-	-	-	-	1	13.7	130	71
9/30/2005	6:45	-	-	-	-	-	-	-	-	1	13.7	140	71
9/30/2005	7:45	-	-	-	-	-	-	-	-	1	13.6	140	74
9/30/2005	8:45	-	-	-	-	-	-	-	-	1	13.6	150	74
9/30/2005	9:45	-	-	-	-	-	-	-	-	1	13.6	150	74
9/30/2005	10:45	-	-	-	-	-	-	-	-	1	13.6	150	74
9/30/2005	11:45	-	-	-	-	-	-	-	-	1	13.6	150	74
9/30/2005	12:45	-	-	-	-	-	-	-	-	1	13.5	140	71
9/30/2005	13:45	-	-	-	-	-	-	-	-	1	13.5	140	71
9/30/2005	14:45	-	-	-	-	-	-	-	-	1	13.5	140	71
9/30/2005	15:45	-	-	-	-	-	-	-	-	1	13.5	140	71

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	MW-1A			MW-3A			VW-1A					
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)
9/30/2005	16:45	-	-	-	-	-	-	-	-	1	13.5	140	71
9/30/2005	17:45	-	-	-	-	-	-	-	-	1	13.9	150	70
9/30/2005	18:45	-	-	-	-	-	-	-	-	1	13.8	140	71
9/30/2005	19:45	-	-	-	-	-	-	-	-	1	13.5	130	74
9/30/2005	20:45	-	-	-	-	-	-	-	-	1	13.7	140	71
9/30/2005	21:45	-	-	-	-	-	-	-	-	1	13.9	140	71
9/30/2005	22:45	-	-	-	-	-	-	-	-	1	13.8	130	71
9/30/2005	23:45	-	-	-	-	-	-	-	-	1	13.6	140	74
10/1/2005	0:45	-	-	-	-	-	-	-	-	1	13.8	140	74
10/1/2005	1:45	-	-	-	-	-	-	-	-	1	13.7	130	71
10/1/2005	2:45	-	-	-	-	-	-	-	-	1	13.5	130	71
10/1/2005	3:45	-	-	-	-	-	-	-	-	1	13.8	140	71
10/1/2005	4:45	-	-	-	-	-	-	-	-	1	13.5	130	74
10/1/2005	5:45	-	-	-	-	-	-	-	-	1	13.6	140	74
10/1/2005	7:45	-	-	-	-	-	-	-	-	1	13.7	130	72
10/1/2005	8:45	-	-	-	-	-	-	-	-	1	13.7	140	72
10/1/2005	9:45	-	-	-	-	-	-	-	-	1	13.7	140	71
10/1/2005	10:45	-	-	-	-	-	-	-	-	1	13.6	140	71
10/2/2005	10:45	-	-	-	-	-	-	-	-	1	13.7	130	74
10/3/2005	10:45	-	-	-	-	-	-	-	-	1	13.8	120	73
10/4/2005	10:45	-	-	-	-	-	-	-	-	1	13.7	100	74
10/5/2005	8:00	-	-	-	-	-	-	-	-	1	4.9	20	120
10/5/2005	8:15	-	-	-	-	-	-	-	-	1	5.0	10	55
10/6/2005	9:00	-	-	-	-	-	-	-	-	1	5.0	10	120
10/6/2005	9:15	-	-	-	-	-	-	-	-	1	5.0	0	55
10/7/2005	11:30	-	-	-	-	-	-	-	-	1	5.2	70	126

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
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9/26/2005 through 10/27/2005

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-1B				VW-1C				VW-2A			
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm v)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm v)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm v)	Flow Rate (scfm)
9/26/2005	11:30	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2005	12:00	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2005	13:00	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2005	14:05	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2005	15:00	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2005	16:30	1	4.9	140	123	-	-	-	-	-	-	-	-
9/26/2005	17:10	1	7.0	300	113	-	-	-	-	-	-	-	-
9/26/2005	18:15	1	10.0	390	97	-	-	-	-	-	-	-	-
9/26/2005	18:50	1	13.3	530	73	-	-	-	-	-	-	-	-
9/26/2005	20:20	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2005	20:55	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2005	21:30	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2005	21:50	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2005	23:00	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2005	23:30	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	0:00	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	1:30	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	2:30	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	3:00	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	3:15	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	3:30	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	4:10	1	13.8	670	68	-	-	-	-	-	-	-	-
9/27/2005	5:10	1	13.8	530	71	-	-	-	-	-	-	-	-
9/27/2005	6:10	1	13.9	460	69	-	-	-	-	-	-	-	-
9/27/2005	6:40	-	-	-	-	-	-	-	-	1	13.5	30	69
9/27/2005	7:40	-	-	-	-	-	-	-	-	1	13.6	50	74

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA

9/26/2005 through 10/27/2005

Date	Time	VW-1B			VW-1C			VW-2A					
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)
9/27/2005	8:40	--	--	--	--	--	1	13.4	50	72	--	--	--
9/27/2005	9:20	--	--	--	--	--	--	--	--	--	--	--	--
9/27/2005	10:20	--	--	--	--	--	--	--	--	--	--	--	--
9/27/2005	11:20	--	--	--	--	--	--	--	--	--	--	--	--
9/27/2005	12:15	--	--	--	--	--	--	--	--	1	13.0	50	74
9/27/2005	14:45	1	13.5	440	83	--	--	--	--	1	13.0	90	78
9/27/2005	15:45	1	13.5	390	76	--	--	--	--	1	13.0	90	78
9/27/2005	16:45	1	13.4	360	81	--	--	--	--	1	9.0	110	103
9/27/2005	17:45	1	13.4	340	76	--	--	--	--	1	9.2	120	101
9/27/2005	18:45	1	13.5	340	75	--	--	--	--	1	9.2	110	101
9/27/2005	20:15	1	13.6	330	76	--	--	--	--	1	9.5	100	101
9/27/2005	20:45	1	13.5	330	76	--	--	--	--	1	9.1	110	101
9/27/2005	22:45	1	13.5	330	75	--	--	--	--	1	9.3	100	101
9/27/2005	23:45	1	13.7	330	76	--	--	--	--	1	9.6	110	100
9/28/2005	0:45	1	13.6	320	75	--	--	--	--	1	9.8	120	101
9/28/2005	1:45	1	13.6	320	75	--	--	--	--	1	9.5	120	101
9/28/2005	2:45	1	13.6	320	75	--	--	--	--	1	9.7	110	101
9/28/2005	3:45	1	13.7	310	75	--	--	--	--	1	9.8	120	101
9/28/2005	4:45	1	13.6	310	75	--	--	--	--	1	9.7	110	101
9/28/2005	5:45	1	13.7	300	75	--	--	--	--	1	9.8	110	101
9/28/2005	6:45	1	13.4	260	74	--	--	--	--	1	9.5	50	99
9/28/2005	7:45	1	13.5	260	112	--	--	--	--	1	9.5	80	99
9/28/2005	8:45	1	13.1	240	107	--	--	--	--	1	8.8	90	113
9/28/2005	9:45	1	13.0	240	107	--	--	--	--	1	9.0	80	110
9/28/2005	10:45	1	13.4	240	77	--	--	--	--	1	9.0	80	103
9/28/2005	11:45	1	13.6	270	66	--	--	--	--	1	9.1	110	96

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-1B			VW-1C			VW-2A					
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Slinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)
9/28/2005	12:45	1	13.8	270	69	-	-	-	-	1	9.2	100	98
9/28/2005	13:45	1	14.0	270	69	-	-	-	-	1	9.2	100	94
9/28/2005	14:45	1	13.9	270	69	-	-	-	-	1	9.2	100	94
9/28/2005	15:45	1	13.9	270	69	-	-	-	-	1	9.2	90	96
9/28/2005	16:45	1	13.8	270	69	-	-	-	-	1	9.2	90	96
9/28/2005	17:45	1	13.8	260	68	-	-	-	-	1	9.2	90	94
9/28/2005	18:45	1	13.9	270	71	-	-	-	-	1	9.2	100	97
9/28/2005	19:45	1	13.8	270	71	-	-	-	-	1	9.4	90	99
9/28/2005	20:45	1	13.5	260	74	-	-	-	-	1	9.2	90	97
9/28/2005	21:45	1	13.6	260	74	-	-	-	-	1	9.2	90	97
9/28/2005	22:45	1	13.6	290	74	-	-	-	-	1	9.4	100	97
9/28/2005	23:45	1	13.8	260	71	-	-	-	-	1	9.2	100	99
9/29/2005	0:45	1	13.8	260	71	-	-	-	-	1	9.5	110	99
9/29/2005	1:45	1	13.6	260	74	-	-	-	-	1	9.2	110	97
9/29/2005	2:45	1	13.8	270	74	-	-	-	-	1	9.4	100	99
9/29/2005	3:45	1	13.8	260	71	-	-	-	-	1	9.4	110	97
9/29/2005	4:45	1	13.8	270	71	-	-	-	-	1	9.4	110	97
9/29/2005	5:45	1	13.6	260	73	-	-	-	-	1	9.5	110	99
9/29/2005	6:45	1	13.8	250	69	-	-	-	-	1	9.3	100	94
9/29/2005	7:45	1	13.8	220	71	-	-	-	-	1	9.3	90	96
9/29/2005	8:45	1	13.9	230	71	-	-	-	-	1	9.3	120	98
9/29/2005	9:45	1	13.8	270	71	-	-	-	-	1	9.2	130	98
9/29/2005	10:45	1	13.8	240	74	-	-	-	-	1	9.1	110	100
9/29/2005	11:45	1	13.8	250	74	-	-	-	-	1	9.2	110	100
9/29/2005	12:45	1	13.9	240	71	-	-	-	-	1	9.2	110	98
9/29/2005	13:45	1	13.8	230	71	-	-	-	-	1	9.2	100	98

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-1B			VW-1C			VW-2A		
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm)
9/29/2005	14:45	1	13.7	230	71	-	-	1	9.2	100
9/29/2005	15:45	1	13.7	230	71	-	-	1	9.2	100
9/29/2005	16:45	1	13.7	230	71	-	-	1	9.2	100
9/29/2005	17:45	1	13.7	230	71	-	-	1	9.1	100
9/29/2005	18:45	1	13.8	240	71	-	-	1	9.2	100
9/29/2005	19:45	1	13.7	230	71	-	-	1	9.1	110
9/29/2005	20:45	1	13.7	240	71	-	-	1	9.1	100
9/29/2005	21:45	1	13.8	240	71	-	-	1	9.1	100
9/29/2005	22:45	1	13.5	230	74	-	-	1	9.2	100
9/29/2005	23:45	1	13.6	240	71	-	-	1	9.2	120
9/30/2005	0:45	1	13.8	230	71	-	-	1	9.1	110
9/30/2005	1:45	1	13.6	230	71	-	-	1	9.1	110
9/30/2005	2:45	1	13.8	230	74	-	-	1	9.2	120
9/30/2005	3:45	1	13.5	240	71	-	-	1	9.1	110
9/30/2005	4:45	1	13.8	230	71	-	-	1	9.2	110
9/30/2005	5:45	1	13.5	240	71	-	-	1	9.2	120
9/30/2005	6:45	1	13.8	200	71	-	-	1	9.4	90
9/30/2005	7:45	1	13.9	210	71	-	-	1	9.3	90
9/30/2005	8:45	1	13.9	220	71	-	-	1	9.3	100
9/30/2005	9:45	1	13.8	220	71	-	-	1	9.2	100
9/30/2005	10:45	1	13.8	220	71	-	-	1	9.2	110
9/30/2005	11:45	1	13.8	220	71	-	-	1	9.2	110
9/30/2005	12:45	1	13.9	210	71	-	-	1	9.3	100
9/30/2005	13:45	1	13.9	200	71	-	-	1	9.2	100
9/30/2005	14:45	1	13.8	210	71	-	-	1	9.2	100
9/30/2005	15:45	1	13.8	200	69	-	-	1	9.2	90

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-1B				VW-1C				VW-2A			
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)
9/30/2005	16:45	1	13.8	200	63	-	-	-	-	1	9.2	90	98
9/30/2005	17:45	1	14.2	200	69	-	-	-	-	1	9.3	100	95
9/30/2005	18:45	1	13.8	210	71	-	-	-	-	1	9.2	90	96
9/30/2005	19:45	1	13.8	210	71	-	-	-	-	1	9.2	100	97
9/30/2005	20:45	1	13.9	190	69	-	-	-	-	1	9.3	100	98
9/30/2005	21:45	1	14.1	200	69	-	-	-	-	1	9.3	90	97
9/30/2005	22:45	1	14.0	200	69	-	-	-	-	1	9.3	90 <sup>c</sup>	96
9/30/2005	23:45	1	14.0	190	69	-	-	-	-	1	9.5	100	97
10/1/2005	0:45	1	14.1	200	69	-	-	-	-	1	9.2	100	97
10/1/2005	1:45	1	13.9	200	71	-	-	-	-	1	9.3	90	98
10/1/2005	2:45	1	14.1	190	71	-	-	-	-	1	9.2	90	98
10/1/2005	3:45	1	14.1	190	71	-	-	-	-	1	9.2	90	97
10/1/2005	4:45	1	14.0	180	71	-	-	-	-	1	9.3	80	97
10/1/2005	5:45	1	14.0	190	69	-	-	-	-	1	9.5	90	98
10/1/2005	7:45	1	14.0	180	69	-	-	-	-	1	9.3	70	97
10/1/2005	8:45	1	13.8	190	74	-	-	-	-	1	9.3	80	97
10/1/2005	9:45	1	13.8	190	74	-	-	-	-	1	9.2	80	98
10/1/2005	10:45	1	13.7	180	74	-	-	-	-	1	9.1	80	98
10/2/2005	10:45	1	13.8	160	74	-	-	-	-	1	9.4	70	98
10/3/2005	10:45	1	13.8	150	73	-	-	-	-	1	9.5	80	98
10/4/2005	10:45	1	13.8	130	73	-	-	-	-	1	9.3	50	101
10/5/2005	8:00	1	5.1	10	133	-	-	-	-	1	4.5	10	137
10/5/2005	8:15	1	5.2	0	52	-	-	-	-	1	4.5	0	60
10/6/2005	9:00	1	5.0	10	134	-	-	-	-	1	4.6	10	139
10/6/2005	9:15	1	5.1	10	55	-	-	-	-	1	4.6	0	57
10/7/2005	11:30	1	5.2	20	136	-	-	-	-	1	4.2	60	145

**TABLE 2**  
**WELL PARAMETERS**  
 Former 76 Station 0353  
 Glendale, CA

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA

9/26/2005 through 10/27/2005

Date	Time	VW-2B			VW-2C			VW-3A					
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)
9/27/2005	8:40	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	9:20	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	10:20	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	11:20	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	12:15	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2005	14:45	1	10.7	860	97	-	-	-	-	1	12.8	30	78
9/27/2005	15:45	1	10.7	720	97	-	-	-	-	1	12.8	40	93
9/27/2005	16:45	1	10.6	600	93	-	-	-	-	1	12.8	40	81
9/27/2005	17:45	1	10.7	530	93	-	-	-	-	1	12.8	40	78
9/27/2005	18:45	1	10.7	500	93	-	-	-	-	1	13.0	40	78
9/27/2005	20:15	1	11.2	470	93	-	-	-	-	1	13.0	30	78
9/27/2005	20:45	1	11.4	460	92	-	-	-	-	1	13.0	40	78
9/27/2005	22:45	1	11.3	440	93	-	-	-	-	1	13.0	40	76
9/27/2005	23:45	1	11.8	400	91	-	-	-	-	1	13.1	50	77
9/28/2005	0:45	1	11.5	410	93	-	-	-	-	1	13.0	40	76
9/28/2005	1:45	1	11.6	390	91	-	-	-	-	1	13.1	50	77
9/28/2005	2:45	1	11.8	370	93	-	-	-	-	1	13.0	40	78
9/28/2005	3:45	1	11.8	350	91	-	-	-	-	1	13.0	40	76
9/28/2005	4:45	1	11.6	340	93	-	-	-	-	1	13.1	30	77
9/28/2005	5:45	1	11.8	330	92	-	-	-	-	1	13.1	40	78
9/28/2005	6:45	1	11.5	300	92	-	-	-	-	1	12.5	20	71
9/28/2005	7:45	1	11.3	280	119	-	-	-	-	1	13.0	10	109
9/28/2005	8:45	1	10.6	280	112	-	-	-	-	1	12.6	20	107
9/28/2005	9:45	1	11.0	270	114	-	-	-	-	1	12.8	20	107
9/28/2005	10:45	1	10.6	250	94	-	-	-	-	1	12.8	20	79
9/28/2005	11:45	1	10.8	280	89	-	-	-	-	1	13.1	50	74

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA

9/26/2005 through 10/27/2005

Date	Time	VW-2B			VW-2C			VW-3A				
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmV)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmV)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmV)
9/28/2005	12:45	1	11.1	270	88	-	-	-	-	-	-	-
9/28/2005	13:45	1	11.0	270	89	-	-	-	-	-	-	-
9/28/2005	14:45	1	11.1	270	88	-	-	-	-	-	-	-
9/28/2005	15:45	1	11.0	260	89	-	-	-	-	-	-	-
9/28/2005	16:45	1	10.8	260	89	-	-	-	-	-	-	-
9/28/2005	17:45	1	11.0	250	86	-	-	-	-	-	-	-
9/28/2005	18:45	1	11.1	260	88	-	-	-	-	-	-	-
9/28/2005	19:45	1	11.2	260	88	-	-	-	-	-	-	-
9/28/2005	20:45	1	11.1	250	88	-	-	-	-	-	-	-
9/28/2005	21:45	1	11.0	250	89	-	-	-	-	-	-	-
9/28/2005	22:45	1	11.1	250	88	-	-	-	-	-	-	-
9/28/2005	23:45	1	11.1	240	88	-	-	-	-	-	-	-
9/29/2005	0:45	1	11.0	250	89	-	-	-	-	-	-	-
9/29/2005	1:45	1	11.2	250	88	-	-	-	-	-	-	-
9/29/2005	2:45	1	11.0	240	88	-	-	-	-	-	-	-
9/29/2005	3:45	1	11.1	250	87	-	-	-	-	-	-	-
9/29/2005	4:45	1	11.0	250	88	-	-	-	-	-	-	-
9/29/2005	5:45	1	11.0	250	88	-	-	-	-	-	-	-
9/29/2005	6:45	1	11.0	230	85	-	-	-	-	-	-	-
9/29/2005	7:45	1	11.0	210	87	-	-	-	-	-	-	-
9/29/2005	8:45	1	11.0	230	89	-	-	-	-	-	-	-
9/29/2005	9:45	1	11.1	250	90	-	-	-	-	-	-	-
9/29/2005	10:45	1	11.1	230	90	-	-	-	-	-	-	-
9/29/2005	11:45	1	11.1	230	90	-	-	-	-	-	-	-
9/29/2005	12:45	1	11.0	220	89	-	-	-	-	-	-	-
9/29/2005	13:45	1	10.8	220	89	-	-	-	-	-	-	-





**TABLE 2**  
**WELL PARAMETERS**  
 Former 76 Station 0353  
 Glendale, CA  
 9/26/2005 through 10/27/2005

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-3B			VW-3C		
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)
9/26/2005	11:30	-	-	-	-	-	-
9/26/2005	12:00	-	-	-	-	-	-
9/26/2005	13:00	-	-	-	-	-	-
9/26/2005	14:05	-	-	-	-	-	-
9/26/2005	15:00	-	-	-	-	-	-
9/26/2005	16:30	-	-	-	-	-	-
9/26/2005	17:10	-	-	-	-	-	-
9/26/2005	18:15	-	-	-	-	-	-
9/26/2005	18:50	-	-	-	-	-	-
9/26/2005	20:20	-	-	-	-	-	-
9/26/2005	20:55	-	-	-	-	-	-
9/26/2005	21:30	-	-	-	-	-	-
9/26/2005	21:50	-	-	-	-	-	-
9/26/2005	23:00	-	-	-	-	-	-
9/26/2005	23:30	-	-	-	-	-	-
9/27/2005	0:00	-	-	-	-	-	-
9/27/2005	1:30	-	-	-	-	-	-
9/27/2005	2:30	-	-	-	-	-	-
9/27/2005	3:00	-	-	-	-	-	-
9/27/2005	3:15	-	-	-	-	-	-
9/27/2005	3:30	-	-	-	-	-	-
9/27/2005	4:10	-	-	-	-	-	-
9/27/2005	5:10	-	-	-	-	-	-
9/27/2005	6:10	-	-	-	-	-	-
9/27/2005	6:40	-	-	-	-	-	-
9/27/2005	7:40	-	-	-	-	-	-

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-3B			VW-3C		
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)
9/27/2005	8:40	-	-	-	-	-	-
9/27/2005	9:20	-	-	-	-	-	-
9/27/2005	10:20	-	-	-	-	-	-
9/27/2005	11:20	-	-	-	-	-	-
9/27/2005	12:15	-	-	-	-	-	-
9/27/2005	14:45	-	-	-	-	-	-
9/27/2005	15:45	-	-	-	-	-	-
9/27/2005	16:45	-	-	-	-	-	-
9/27/2005	17:45	-	-	-	-	-	-
9/27/2005	18:45	-	-	-	-	-	-
9/27/2005	20:15	-	-	-	-	-	-
9/27/2005	20:45	-	-	-	-	-	-
9/27/2005	22:45	-	-	-	-	-	-
9/27/2005	23:45	-	-	-	-	-	-
9/28/2005	0:45	-	-	-	-	-	-
9/28/2005	1:45	-	-	-	-	-	-
9/28/2005	2:45	-	-	-	-	-	-
9/28/2005	3:45	-	-	-	-	-	-
9/28/2005	4:45	-	-	-	-	-	-
9/28/2005	5:45	-	-	-	-	-	-
9/28/2005	6:45	-	-	-	-	-	-
9/28/2005	7:45	-	-	-	-	-	-
9/28/2005	8:45	-	-	-	-	-	-
9/28/2005	9:45	-	-	-	-	-	-
9/28/2005	10:45	-	-	-	-	-	-
9/28/2005	11:45	-	-	-	-	-	-

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-3B			VW-3C				
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm)	Flow Rate (scfm)
9/28/2005	12:45	1	13.4	60	74	-	-	-	-
9/28/2005	13:45	1	13.3	60	66	-	-	-	-
9/28/2005	14:45	1	13.4	60	69	-	-	-	-
9/28/2005	15:45	1	13.3	60	74	-	-	-	-
9/28/2005	16:45	1	13.2	60	69	-	-	-	-
9/28/2005	17:45	68	13.3	60	69	-	-	-	-
9/28/2005	18:45	1	13.2	60	74	-	-	-	-
9/28/2005	19:45	1	13.0	70	76	-	-	-	-
9/28/2005	20:45	1	13.1	70	74	-	-	-	-
9/28/2005	21:45	1	13.0	70	76	-	-	-	-
9/28/2005	22:45	1	13.1	60	76	-	-	-	-
9/28/2005	23:45	1	13.2	70	74	-	-	-	-
9/29/2005	0:45	1	13.0	70	74	-	-	-	-
9/29/2005	1:45	1	13.0	70	74	-	-	-	-
9/29/2005	2:45	1	13.2	70	76	-	-	-	-
9/29/2005	3:45	1	13.0	70	74	-	-	-	-
9/29/2005	4:45	1	13.4	60	74	-	-	-	-
9/29/2005	5:45	1	13.1	70	76	-	-	-	-
9/29/2005	6:45	1	13.3	70	71	-	-	-	-
9/29/2005	7:45	1	13.3	80	74	-	-	-	-
9/29/2005	8:45	1	13.36	90	74	-	-	-	-
9/29/2005	9:45	1	13.3	100	76	-	-	-	-
9/29/2005	10:45	1	13.3	90	76	-	-	-	-
9/29/2005	11:45	1	13.3	90	76	-	-	-	-
9/29/2005	12:45	1	13.3	80	76	-	-	-	-
9/29/2005	13:45	1	13.3	80	74	-	-	-	-

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-3B			VW-3C				
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)
9/29/2005	14:45	1	13.2	80	74	-	-	-	-
9/29/2005	15:45	1	13.1	70	74	-	-	-	-
9/29/2005	16:45	1	13.1	70	74	-	-	-	-
9/29/2005	17:45	1	13.1	70	74	-	-	-	-
9/29/2005	18:45	1	13.0	80	74	-	-	-	-
9/29/2005	19:45	1	13.2	80	74	-	-	-	-
9/29/2005	20:45	1	13.1	80	74	-	-	-	-
9/29/2005	21:45	1	13.0	70	71	-	-	-	-
9/29/2005	22:45	1	13.1	80	74	-	-	-	-
9/29/2005	23:45	1	13.2	90	74	-	-	-	-
9/30/2005	0:45	1	13.0	80	71	-	-	-	-
9/30/2005	1:45	1	13.0	80	74	-	-	-	-
9/30/2005	2:45	1	13.1	80	74	-	-	-	-
9/30/2005	3:45	1	13.2	90	71	-	-	-	-
9/30/2005	4:45	1	13.1	80	74	-	-	-	-
9/30/2005	5:45	1	13.2	90	74	-	-	-	-
9/30/2005	6:45	1	13.3	60	74	-	-	-	-
9/30/2005	7:45	1	13.4	60	74	-	-	-	-
9/30/2005	8:45	1	13.4	60	74	-	-	-	-
9/30/2005	9:45	1	13.4	70	76	-	-	-	-
9/30/2005	10:45	1	13.4	80	74	-	-	-	-
9/30/2005	11:45	1	13.4	80	74	-	-	-	-
9/30/2005	12:45	1	13.4	70	74	-	-	-	-
9/30/2005	13:45	1	13.4	70	74	-	-	-	-
9/30/2005	14:45	1	13.3	70	74	-	-	-	-
9/30/2005	15:45	1	13.3	70	74	-	-	-	-

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-3B			VW-3C				
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm)	Flow Rate (scfm)
9/30/2005	16:45	1	13.3	70	74	-	-	-	-
9/30/2005	17:45	1	13.5	70	70	-	-	-	-
9/30/2005	18:45	1	13.3	60	74	-	-	-	-
9/30/2005	19:45	1	13.5	70	71	-	-	-	-
9/30/2005	20:45	1	13.3	70	74	-	-	-	-
9/30/2005	21:45	1	13.4	60	74	-	-	-	-
9/30/2005	22:45	1	13.3	60	74	-	-	-	-
9/30/2005	23:45	1	13.5	60	71	-	-	-	-
10/1/2005	0:45	1	13.3	60	74	-	-	-	-
10/1/2005	1:45	1	13.3	50	74	-	-	-	-
10/1/2005	2:45	1	13.5	50	71	-	-	-	-
10/1/2005	3:45	1	13.3	60	74	-	-	-	-
10/1/2005	4:45	1	13.5	50	71	-	-	-	-
10/1/2005	5:45	1	13.3	60	74	-	-	-	-
10/1/2005	7:45	1	13.3	40	74	-	-	-	-
10/1/2005	8:45	1	13.3	60	74	-	-	-	-
10/1/2005	9:45	1	13.3	60	74	-	-	-	-
10/1/2005	10:45	1	13.2	60	74	-	-	-	-
10/2/2005	10:45	1	13.4	40	74	-	-	-	-
10/3/2005	10:45	1	13.4	50	74	-	-	-	-
10/4/2005	10:45	1	13.5	20	73	-	-	-	-
10/5/2005	8:00	1	5.0	0	126	-	-	-	-
10/5/2005	8:15	1	5.0	0	55	-	-	-	-
10/6/2005	9:00	1	5.1	0	128	-	-	-	-
10/6/2005	9:15	1	5.1	0	55	-	-	-	-
10/7/2005	11:30	1	5.0	10	134	-	-	-	-

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-3B			VW-3C				
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppm)	Flow Rate (scfm)
10/7/2005	11:45	1	4.9	0	60	--	--	--	--
10/8/2005	10:30	1	5.0	0	133	--	--	--	--
10/9/2005	11:30	1	5.0	10	129	--	--	--	--
10/10/2005	11:00	1	5.0	0	129	--	--	--	--
10/11/2005	5:30	1	5.0	10	129	--	--	--	--
10/12/2005	7:00	1	5.1	10	123	--	--	--	--
10/13/2005	7:30	1	5.2	10	118	--	--	--	--
10/14/2005	8:00	1	5.2	10	120	--	--	--	--
10/15/2005	7:00	1	5.1	10	120	--	--	--	--
10/16/2005	7:30	1	5.2	0	121	--	--	--	--
10/17/2005	9:00	1	5.1	0	120	--	--	--	--
10/18/2005	10:00	1	4.6	0	113	--	--	--	--
10/19/2005	10:30	--	--	--	--	1	4.3	0	103
10/20/2005	11:00	1	4.2	0	105	1	3.5	0	103
10/20/2005	11:30	--	--	--	--	--	--	--	--
10/21/2005	8:00	--	--	--	--	--	--	--	--
10/22/2005	6:00	1	4.2	10	105	--	--	--	--
10/23/2005	7:00	1	4.2	10	101	--	--	--	--
10/24/2005	9:30	1	10.2	30	71	--	--	--	--
10/25/2005	10:30	1	10.1	30	73	--	--	--	--
10/26/2005	11:30	1	10.1	20	73	--	--	--	--
10/27/2005	10:00	1	10.2	30	73	--	--	--	--

**TABLE 2**  
**WELL PARAMETERS**  
Former 76 Station 0353  
Glendale, CA  
9/26/2005 through 10/27/2005

Date	Time	VW-3B			VW-3C				
		Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)	Stinger Depth (ftbg)	Vacuum (in. Hg)	Influent Conc. (ppmv)	Flow Rate (scfm)

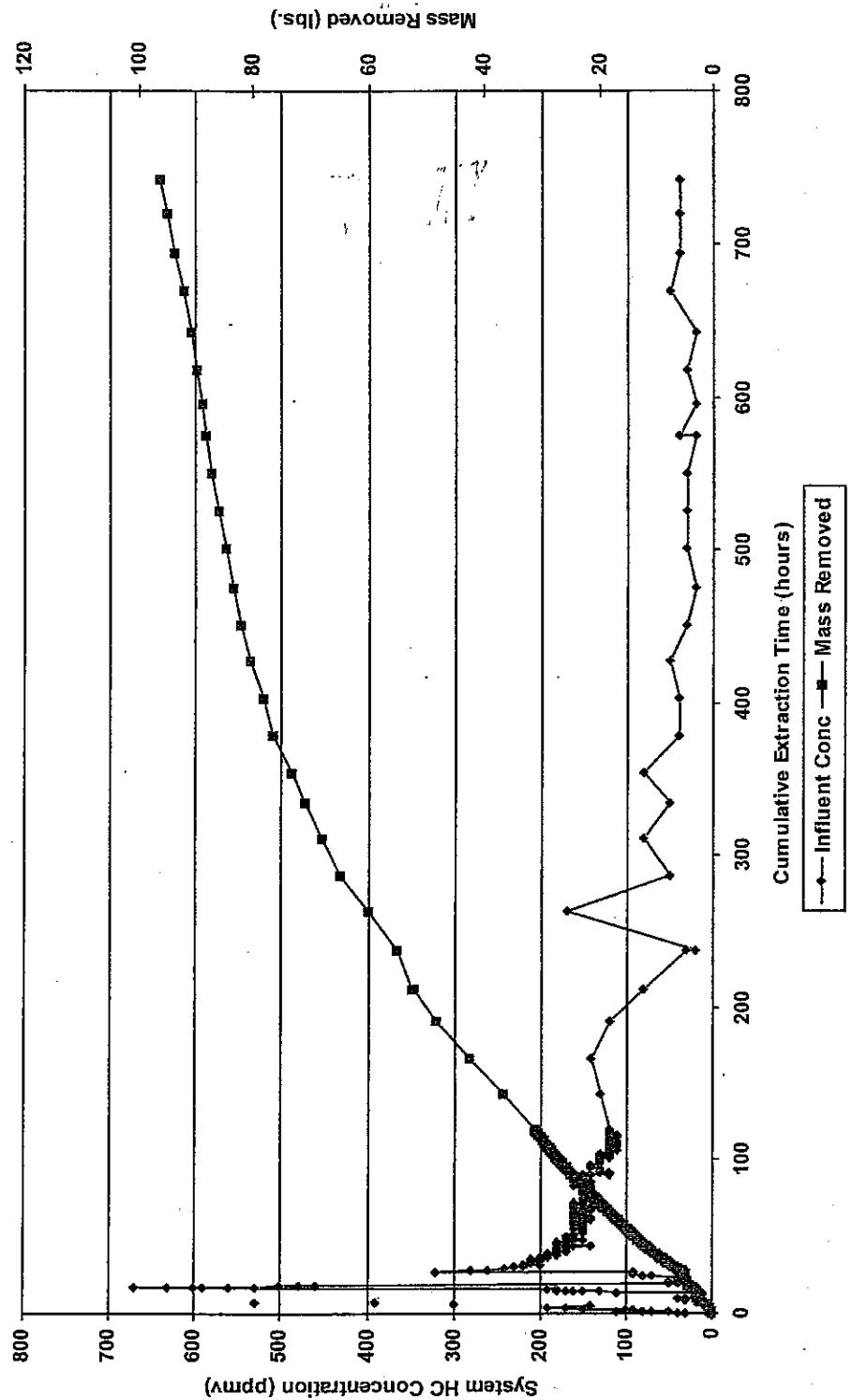
ftbg = feet below ground  
in. Hg = inches of mercury

Conc. = concentration

ppmv = parts per million by volume

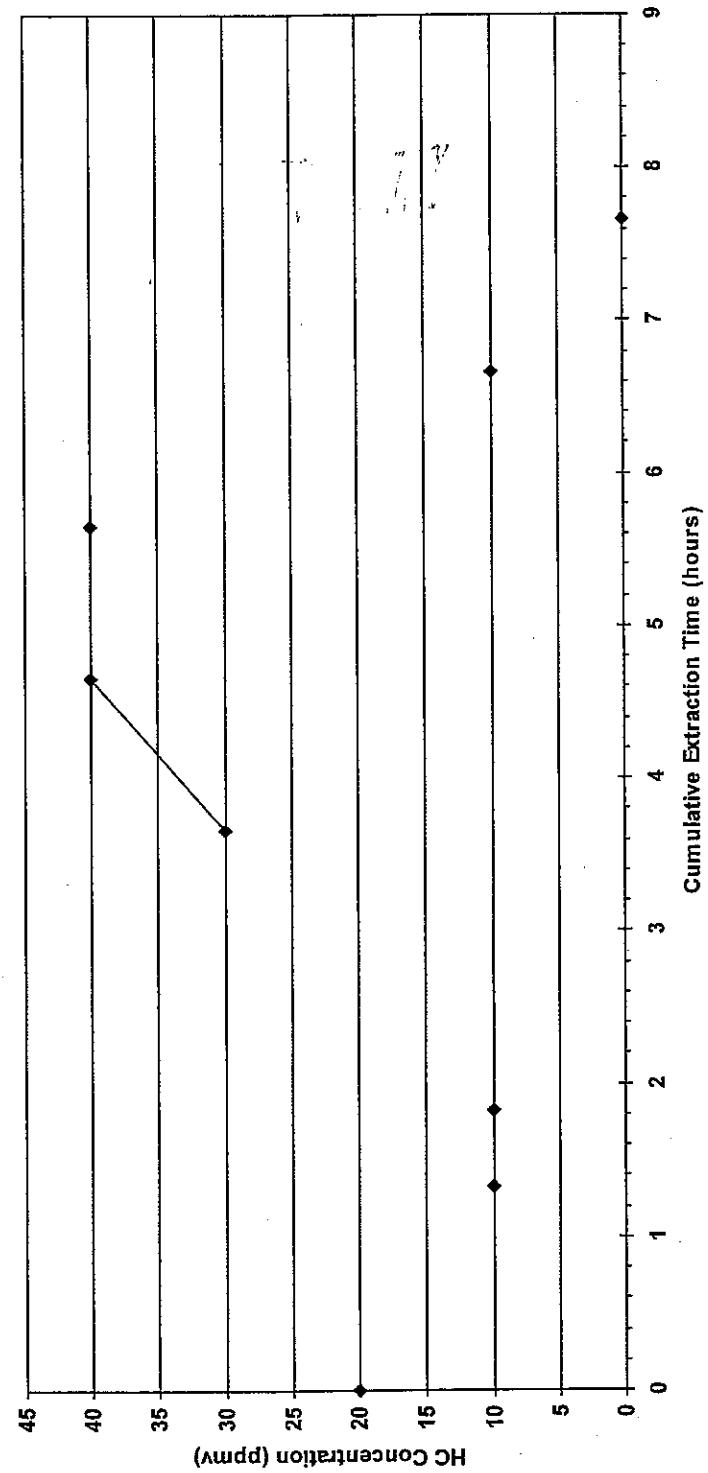
scfm = standard cubic feet per minute

**Graph 1**  
**System Hydrocarbon (HC) and Cumulative HC removed vs. Time**  
**Former 76 Station 0353**  
**9/26/2005 through 10/27/2005**



1. ppmv = parts per million by volume
2. lbs. = pounds
3. Conc = concentration
4. The HC concentrations were measured using a Horiba MEXA-224GE field HC analyzer.

**Graph 2**  
**Well Hydrocarbon (HC) Concentration vs. Time**  
Former 76 Station 0353, Well MW-1A  
9/26/2005 through 10/27/2005



1. ppmv = parts per million by volume
2. The HC concentrations were measured using a Horiba MEXA-224GE field HC analyzer with a maximum range of 10,000 ppmv.